

This guide provides assembly instructions and guides for nearly all SAINTCON MiniBadges. **RARITY:** This term is a little subjective, but is based on the following general guidelines:

500+ Available - Very Common 300 - 500 Available - Common 200 - 300 Available - Uncommon 100 - 200 Available - Rare 100 or fewer - Super Rare 10 or fewer - Not Included

DIFFICULTY: This is the basic definition of assembly difficulty:

BEGINNER: Generally uses large components, and with some basic soldering skills, this badge should be simple to assemble for most people.

IMTERMEDIATE: Badges with this rating should not scare you away from assembling them. They get this rating when they use smaller components that might require a little more attention or steady hand to assemble. This could also indicate some level of complexity.

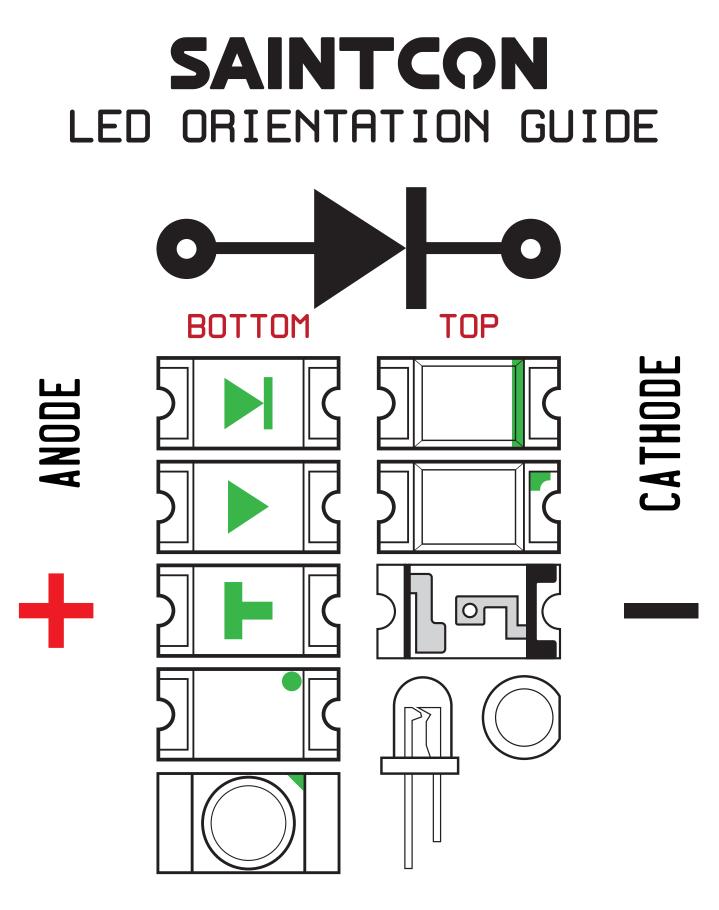
ADVANCED: Badges with this rating are generally for those with more refined soldering skills. Components are generally small and require a very steady and nimble hand to solder manually. We still encourage you to try. Using solder-paste and an oven can make this easier.

TYPES: We have done our best to compile in this guide an assembly guide for all known Minibadges. These badges fall into the following categories:

OFFICIAL: Badges designed specifically for the conference, and are acquired as part of the efforts to participate and explore what the conference has to offer.

SPONSOR: Badges designed by/for our proud sponsors. We are excited to see more sponsor minibadges than ever before.

PERSONAL: Many minibadge creators are super proud of their works, and are bringing badges to the conference for trading or to use for networking with people. These are not supported directly by the conference and but are featured here for convenience and assembly help.



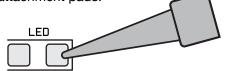
HAND SOLDERING

SINGLE-PAD SOLDERING METHOD

When hand-soldering Surface Mount Devices (SMD), the easiest method is to solder one-pad at a time. It's called the Single-Pad Soldering Method. Here is how it works:

Regardless of how many contacts there are, it is important to only ever add solder to ONE PAD until the component is attached to the board. For example, with a standard LED here is how you would complete this process:

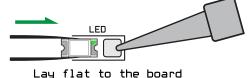
1. Use the soldering-iron to heat up and add a SMALL dab of solder to one side of the attachment pads.



2. Use tweezers to **carefully hold the LED** with one side of the exposed contacts sticking out. For LEDs be sure to use the right orientation to avoid attaching the component backwards.

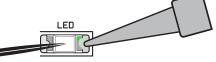


3. **Re-Heat the solder placed on the single-pad** with the iron, and carefully **slide one side of the LED component** into the molten solder.

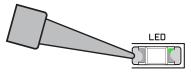


and slide into the Solder.

4. Remove the heat, and allow the component to connect to the board. Once attached, use tweezers to gently rest on the top of the LED, and reheat the solder one last time. This will allow the component to settle flat to the board.



5. Once attached and flat to the board, use the iron to add a SMALL dab of solder to the other side of the LED to complete the attachment. Very little solder is needed.





OFFICIAL MINIBADGES

The following badges are contributed by various minibadge creators and are included here for reference. Any issues with these badges should be referred to the creator.



SAINTCON MIINIBADGE PEOPLE BADGE

Designed by: Jup1t3r

The ATTENDEE, STAFF, VOLUNTEER, SPEAKER

Minibadge for people. This Minibadge comes in a variety of colors but you only get the one for your status level.

This MiniBadge is given to you based on your involvement level in the conference. Everyone gets an ATTENDEE Badge.

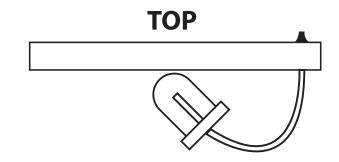
This MiniBadge looks amazing, but is a little technical on how to put it together.

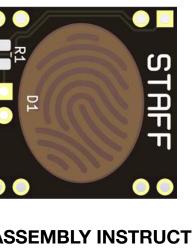
DIFFICULTY: BEGINNER



- · Building this badge is NOT HARD, but does require you to follow precise instructions. To make it easier, I have made a video on how to create this badge.
- Please follow the instructions in the Online Video by scanning this QR CODE:





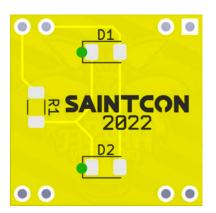




SAINTCON MIINIBADGE APPSEC COMMUNITY BADGE

Designed by: Jup1t3r

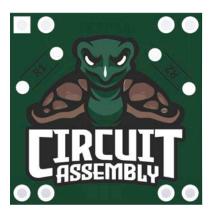
The AppSec Community Minibadge has the classic Wasp symbol which is a nod to the OWASP application security framework. This MiniBadge can be obtained by interacting with the AppSec Community folks at their booth.

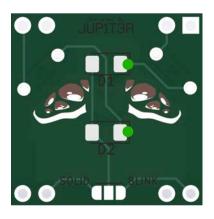


DIFFICULTY: BEGINNER



- · Begin on the back side first.
- LED Direction indicators are on the image to the left.
- Solder the two LEDs first, using the single-pad method for hand soldering.
- Solder the Resistor using the same single-pad method for hand soldering.
- Solder the 4x 2-Position headers, with the Wasp artwork facing out.





SAINTCON MINIBADGE CIRCUIT ASSEMBLY BADGE Designed by: Jup1t3r

Circuit Assembly, is the new name for the area where we do all of the soldering at SAINTCON. This badge is super simple to assemble.

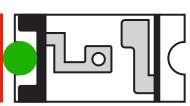
This badge has both Through-hole (THT) and Surface-Mount (SMD) components.

You can acquire this MiniBadge by showing off something you soldered to the folks running this community on the stage tables.

LED ORIENTATION WARNING NOTE: This LED has poor markings for polarity. Please reference the image above to ensure you have the LED installed the right direction.

DIFFICULTY:

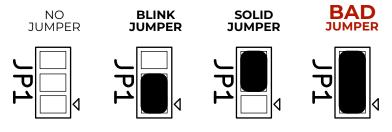
BEGINNER



rarity: COMMON

ASSEMBLY INSTRUCTIONS:

- Begin on the back side first.
- LED Direction indicators are on the image above.
- Solder the LEDs first, using the single-pad method for hand soldering.
- Solder the Resistors by placing them through the holes on either side of the Turtle image, with the resistors on the front of the badge.
- Solder the Jumper at the bottom of the board, bridging EITHER the SOLID or BLINK side, Never Solder across all three.



• Solder the 4x 2-Position headers.

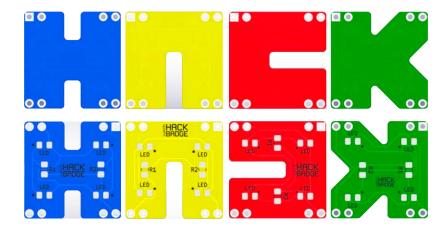
SAINTCON MINIBADGE HACK MINIBADGES

Designed by: Jup1t3r

The HACK minibadges are a set of 4 made up of each letter in the word HACK. For this year they will be given out as a set.

To obtain this set of Minibadges, visit the BadgeLife community booth while Jup1t3r it present and behind the table. This will occur several times during the conference event, but is not scheduled specifically.

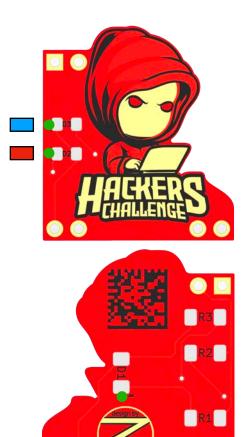
Jup1t3r may ask you about your first ever real hack to earn this set of Minibadges.



DIFFICULTY:

RARITY:

- Begin on the Back side first.
- Each LED has a Black-Dot to mark the Cathode. Attach the LEDs using the single-pad hand soldering method. 4 LEDs per badge.
- · Solder the resistor using the single-pad method for hand soldering.
- Solder the 4x 2-Position headers.



SAINTCON MUNIBADGE HACKERS CHALLENGE BADGE Designed by: Zevlag

vesigned by: Zevlag

Designed by Zevlag, the Hackers Challenge Minibadge is a common badge to find at SAINTCON. You can obtain one by interacting with one of the Game Masters for the Hackers Challenge game. They MAY make you solve at least one puzzle to earn one, but then again, maybe not.

DIFFICULTY:

RARITY:

- Begin on the Back side first.
- Attach the non-colored LED on the back side first. (D1) Use the single-pad method for hand soldering.
- Using the same method, attach the resistors defined here:
 - Non-Colored Resistor to R1
 - Red-Colored Resistor to R2
 - Blue-Colored Resistor to R3
- On the FRONT of the Minibadge, attach the remaining LEDs as defined here:
 - Red-Colored LED to D2
 - Blue-Colored LED to D3
 - NOTE: As an alternative, you may choose to turn the LEDs upside-down. The designer recommends this option if you are able to do it. (Advanced)
- Solder the 3x 2-Position headers.





HACK-IN-THE-BOX or HAK-IN-THE-BOX is an unofficial event that partners with SAINTCON each year to offer more after-hours activities for conference attendees.

To get this MiniBadge, you will need to visit the Hack-in-the-box event.

This MiniBadge offers reverse-mount LEDs that can be a little difficult to solder. Some patience will be required.

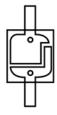
DIFFICULTY: RARITY: INTERMEDIATE UNCOMMON

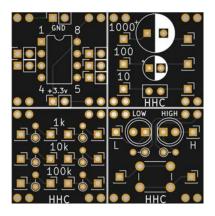
ASSEMBLY INSTRUCTIONS:

- Begin on the Back side first.
- LED direction is illustrated to the right >>>>.
- Solder the LEDs first, using the single-pad method for hand soldering.
- Solder the resistors, using the single-pad method for hand soldering.
- Solder the 4x 2-Position headers.

LED ORIENTATION

THIS END TO TOP

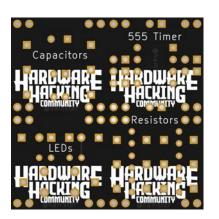




SAINTCON MINIBADGE HARDWARE HACKING BADGE Designed by: hamster

This is the badge for the Hardware Hacking Community, and is designed to help teach how to solder and how basic analog

To get this Minibadge, come and visit the Hardware Hacking Community area.



DIFFICULTY: BEGINNER

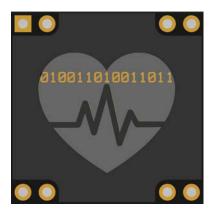
RARITY:

ASSEMBLY INSTRUCTIONS:

• Leave the badges together as a panel until the end. Start on the top side.

circuits work.

- Take your stick of sockets, and break them up into: qty two-pin sockets, and 22, one-pin sockets.
- Next place an index card or other stiff item across the top of the panel and carefully flip it over.
- Solder each of the sockets.
- Next, install the other components: Please not polarity of the capacitors. Please also note the DOT on the 555 timer, and Resistors should be installed "standing up".
- Attach each of the 2-pin headers.
- Break up the board and start playing with circuits.

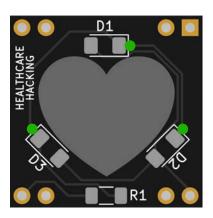


SAINTCON MINIBADGE HEALTHCARE COMMUNITY BADGE

Designed by: Jup1t3r

The Healthcare Hacking Community is a new addition to SAINTCON for 2022. Learn about Medical Device Security and the challenges of security in healthcare.

To get this Minibadge, you will need to interact with the folks at the Healthcare hacking Community Booth.



DIFFICULTY: BEGINNER



- Begin on the Back side first.
- LED Direction indicators are on the image above.
- Solder the LEDs first, using the single-pad method for hand soldering.
- Solder the resistor using the single-pad method for hand soldering.
- Solder the 4x 2-Position headers.
- For a better lighting effect, you can use HOT GLUE to cover the LEDs and the unmasked area on the back of the Minibadge.

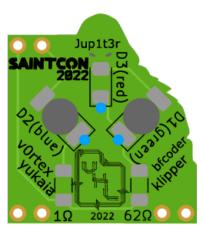


SAINTCON MUNIBADGE HOMELABS MINIBADGE

Designed by: bfcoder, klipper, vOrtex, yukia, Jup1t3r

HomeLabs is a new community to SAINTCON in 2022. They will provide instruction and resources for helping you develop a Home Lab with the goal to further develop your skillsets in an area you want to develop.

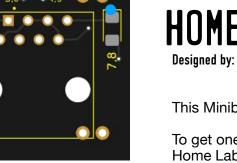
To get one of these MiniBadges, you just need to visit the HomeLabs Community Both and interact.



DIFFICULTY:



- Begin on the Back side first.
- LED direction indicators are on the image above. (Marked in Blue)
- Solder the resistors first, using the single-pad method for hand soldering.
- Each resistor is paired with the color of LED. The pairing matters!
- Solder the 10hm on the left side for the blue LED.
- Solder the 620hm on the right side for the red and green LED's.
- Solder the LED's using the single-pad method for hand soldering.
- The red LED is designed to shine away from the badge and reflect back to the eyes.
- The blue and green LED's are designed to shine directly through the PCB
- Solder the 3x 2-position headers.

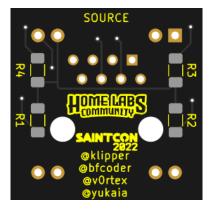


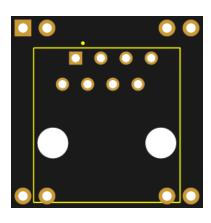
SAINTCON MINIBADGE HOMELABS CAT6 MINIBADGE

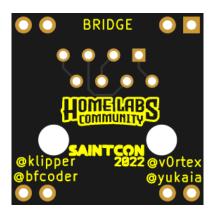
Designed by: bfcoder, klipper, vOrtex, yukia

This Minibadge can be used as a simple Ethernet Cable Tester

To get one of these Minibadge Sets, you must complete the Home Labs section of the Hackers Challenge contest.







DIFFICULTY: ADVANCED

RARITY:

ASSEMBLY INSTRUCTIONS:

FOR THE SOURCE BADGE

- Start on the FRONT, by soldering the LEDs using the single-pad soldering method.
- On the reverse-side, solder the resistors using the single-pad soldering method.

FOR BOTH BADGES:

- Once all LEDs and Resistors are connected, gently press-to-fit the ethernet jack (careful to not bend the pins against the board). Once press-fit, you may solder each connection on the back side.
- Then connect the header pins



SAINTCON MINIBADGE INFOBOOTH BADGE

Designed by: SHIFTY

Designed by SHIFTY, this badge is handed out by the InfoBooth. The badge is available while supplies last.

They InfoBooth staff may require you to complete some task before getting one of these badges.



DIFFICULTY: BEGINNER



- Begin on the Back side first.
- LED Direction indicators are on the image above.
- Solder the LED first, using the single-pad method for hand soldering.
- Solder the resistor using the single-pad method for hand soldering.
- Solder the 4x 2-Position headers.



SAINTCON MUNIBADGE IOT COMMUNITY MINIBADGE Designed by: Jup1t3r

The IoT Community is where you can learn about the entire and ever-growing world of vulnerable things that exist on the internet.

This Minibadge can be acquired by interacting with the people running the IoT community booth in the expo space.



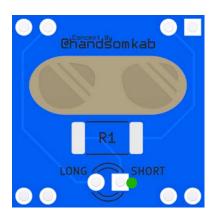
WARNING: Component labels on this badge are a little confusing, THE LED is on the TOP, the RESISTOR is on the BOTTOM. Don't mess it up!

DIFFICULTY: BEGINNER



- Begin on the Back side first.
- LED Direction indicators are on the image above.
- Solder the LED first, using the single-pad method for hand soldering. **NOTE: The LED is the TOP COMPONENT**, (See Green Dot Above)
- Solder the resistor using the single-pad method for hand soldering.
- Solder the 4x 2-Position headers.



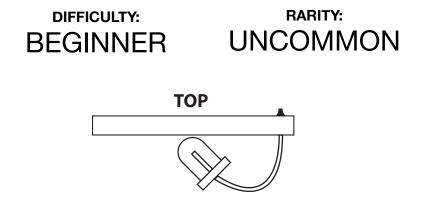


SAINTCON MINIBADGE LEADERSHIP BADGE Designed by: Handsomkab and Jup1t3r

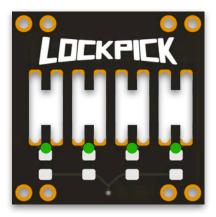
besigned by. Handsonikab and suprisi

The Leadership Community is where we invite C-Level executives to come and participate in SAINTCON.

To get this badge, you need to participate in the Leadership Community



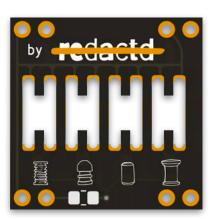
- Begin on the Back side first.
- Solder the LED so that it is connected on the back-side of the board, with a minimum of 1/2" standoff so the LED can be bent slightly inward.
- Solder the resistor using the single-pad method for hand soldering.
- After soldering, carefully bend the LED around until it is resting on the back of the board as shown above.
- Solder the 4x 2-Position headers.
- For a better lighting effect, you can use HOT GLUE to cover the LEDs and the unmasked area on the back of the Minibadge.



SAINTCON MUNIBADGE

The Lock Picking area is where we teach that "Everything is vulnerable if you know how it works". We believe that teaching someone how to pick locks, teaches them how to think outside the box.

To get one of these awesome Minibadges, please visit the Lock Picking Community. They MAY make you pick a lock to earn one, or they may just be handing them out. Just ask.



DIFFICULTY:



- Begin on the Front side first.
- LED Direction indicators are on the image above.
- Solder the LEDs first, using the single-pad method for hand soldering.
- Turn the badge over.
- Solder the resistor using the single-pad method for hand soldering.
- CAREFULLY separate the springs. (They will get lost if you are not careful)
 - Insert one spring into each of the four positions to complete the circuit.
 - You MAY have to adjust the diameter of the spring to make a good contact.
 - If you lose a spring, there are a few extras at the Circuit Assembly Booth (while supplies last)
- Solder the 4x 2-Position headers.

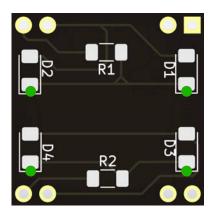


SAINTCON MINIBADGE LOS SANTOS CHALLENGE Designed by: Jup1t3r

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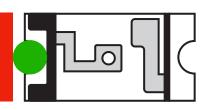
The Los Santos Escape challenge is one of the premiere lockpick and critical thinking escape contest at SAINTCON.

To acquire this MiniBadge, you either need to participate in, or observe someone participating in the escape challenge. We encourage the direct participation however.



This Minibadge is simple to assemble.

LED ORIENTATION WARNING NOTE: This LED has poor markings for polarity. Please reference the image above to ensure you have the LED installed the right direction.



DIFFICULTY: BEGINNER

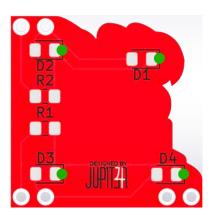


- Begin on the Back side first.
- LED Direction indicators are on the image above.
- Solder the LEDs first, using the single-pad method for hand soldering.
- Solder the resistors using the single-pad method for hand soldering.
- Solder the 4x 2-Position headers.



SAINTCON MINIBADGE PACKET CAPTURE BADGE Designed by: Jup113r

Packet Capture badge is obtained from the Packet Capture Community booth.



DIFFICULTY: BEGINNER



- Begin on the Back side first.
- LED Direction indicators are on the image above.
- Solder the LEDs first, using the single-pad method for hand soldering.
- Solder the resistor using the single-pad method for hand soldering.
- Solder the 3x 2-Position headers.

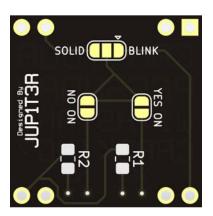


SAINTCON MUNIBADGE PASSWORD CRACK BADGE Designed by: Jup1t3r

Password Cracking is an important technology to understand.

To acquire this MiniBadge, you need to interact with the people running the password cracking community booth.

The MiniBadge can be set to either BLINK or be SOLID. You can also solder it to have YES LED, NO LED, or both LEDs on by soldering the YES or NO jumpers in the center.

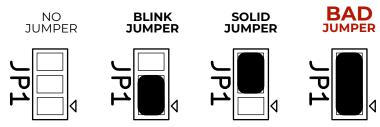


DIFFICULTY:



ASSEMBLY INSTRUCTIONS:

- Begin on the Front side first.
- LED Direction indicators are on the image above.
- Solder the LEDs first, using the single-pad method for hand soldering.
- Turn the badge over, solder the resistors using the single-pad method for hand soldering.
- Solder the Jumper at the top of the board, bridging EITHER the SOLID or BLINK side, Never Solder across all three.



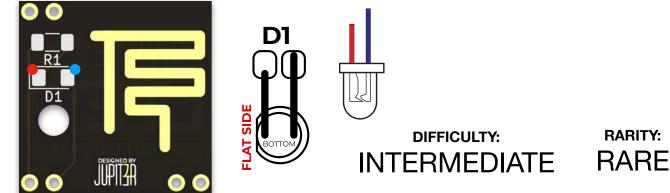
• Solder the 4x 2-Position headers.



SAINTCON MUNIBADGE PRIVATE LTE BADGE Designed by: Jup1t3r

The Private LTE minibadge is a promotional badge for the use of LTE technology in private networks.

To get this minibadge, you need to find the folks who are promoting this technology. They usually hang out in the Leadership Track.



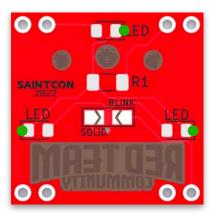
- Begin on the Back side first.
- Begin by placing the LED through the hole emerging from the back side. Once in the hole, rotate the LED so that the shorter leg of the LED is on the LEFT side
- Bend the Short LED leg upward, and TRIM it so that it is only as long as needed to reach the LED pad marked RED above (SHORT SIDE GOES TO RED)
- Bend the Long LED leg upward, and TRIM it so that it is only as long as needed to reach the LED pad marked BLUE above. (LONG SIDE GOES TO BLUE)
- Solder the resistor using the single-pad method for hand soldering.
- Solder the 3x 2-Position headers.



SAINTCON MUNIBADGE RED TEAM MINIBADGE Designed by: Jup1t3r

The Red Team Community is where you can learn many of the tools and tactics of penetration testing, and even test your skills against real-life scenarios.

To get this MiniBadge, you will need to visit the Red Team Community and interact with them there.

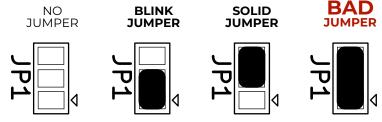


DIFFICULTY: BEGINNER

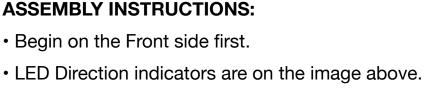


ASSEMBLY INSTRUCTIONS:

- Begin on the Back side first.
- LED Direction indicators are on the image above.
- Solder the LEDs first, using the single-pad method for hand soldering.
- Solder the resistor using the single-pad method for hand soldering.
- Solder either the BLINK or SOLID size of the Jumper depending on your preference.



• Solder the 4x 2-Position headers.



JUPTA

- Solder the LED first, using the single-pad method for hand soldering.
- Solder the resistors using the single-pad method for hand soldering.
- Affix the RFID Tag Sticker to the back-side of the MiniBadge. You MAY have to trim it slightly along the edges
- **IMPORTANT**: Complete the previous step before putting on the pin headers
- Solder the 4x 2-Position headers.



Come learn about NFC and RFID Vulnerabilities. And we'll give you one of these cool MiniBadges while supplies last.



DIFFICULTY: BEGINNER

RARITY: COMMON

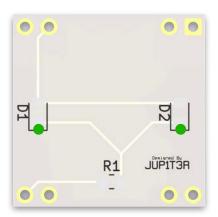


SAINTCON MIINIBADGE SCAVENGER HUNT BADGE

Designed by: Jup1t3r

Play the Scavenger Hunt game, and you will get a Scavenger Hunt MiniBadge.

Simple Design



DIFFICULTY: BEGINNER



- · Begin on the Back side first.
- LED Direction indicators are on the image above.
- Solder the LEDs first, using the single-pad method for hand soldering.
- Solder the resistor using the single-pad method for hand soldering.
- Solder the 4x 2-Position headers.



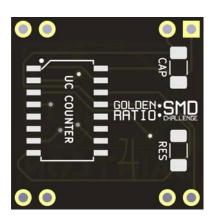
SAINTCON MIINIBADGE SMD CHALLENGE BADGE

Designed by: Jup1t3r

This Badge is designed to challenge your SMD soldering skills, and/or teach you to use more advanced soldering tools.

There is a Solder Paste Stencil available at the Circuit Assembly administration booth. This will make your efforts infinitely easier if you want to use it.

This badge is acquired by purchasing it from the SAINTCON store for \$5 to cover the cost of components and special tools you will borrow to make it work.



DIFFICULTY: ADVANCED



- Begin on the Front side first.
- We highly recommend that you use the Solder Paste Stencil available in the **CAC** by asking the people running the area for help. You can alternatively hand solder many of these components by hand if you want to attempt it.
- PUT THE LEDS ON FIRST!
- NOTE: The Golden Ratio curve acts as the NEGATIVE side of the circuit for every LED. Please orient them with the Cathode facing the curve.
- LED Direction indicators are on the image above (Green Dots).
- After attaching the LEDs, proceed to hand-solder the components on the back side.
- Solder the 4x 2-Position headers.

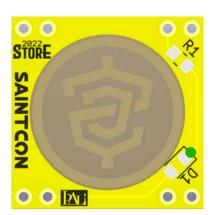


SAINTCON MIINIBADGE STORE MINIBADGE

Designed by: Pali

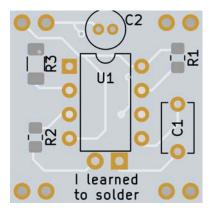
The Store is where you can go get ur Merch!

To get this minibadge you need to purchase something from the store, while supplies last.



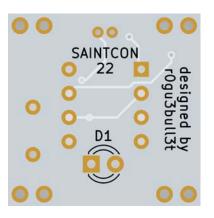
RARITY: DIFFICULTY: INTERMEDIATE UNCOMMON

- Begin on the Back side first.
- LED Direction indicators are on the image above.
- Solder the LED first, using the single-pad method for hand soldering.
- Solder the resistor using the single-pad method for hand soldering.
- Solder the 4x 2-Position headers.



SAINTCON MUNIBADGE LEARN 2 SOLDER BADGE Designed by: r0gu3bull3t

To get this Minibadge, you will need to participate in the Learning to Solder presentation.



DIFFICULTY: BEGINNER RARITY:

ASSEMBLY INSTRUCTIONS:

• Instructions to solder this badge will be given in the soldering class.

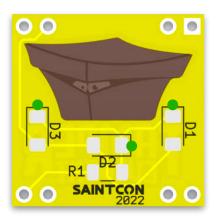




SAINTCON MINIBADGE TAMPER EVIDENT BADGE Designed by: Jup1t3r

Tamper Evident badges are given out after interacting with the folks at the Tamper Evident Contest booth.

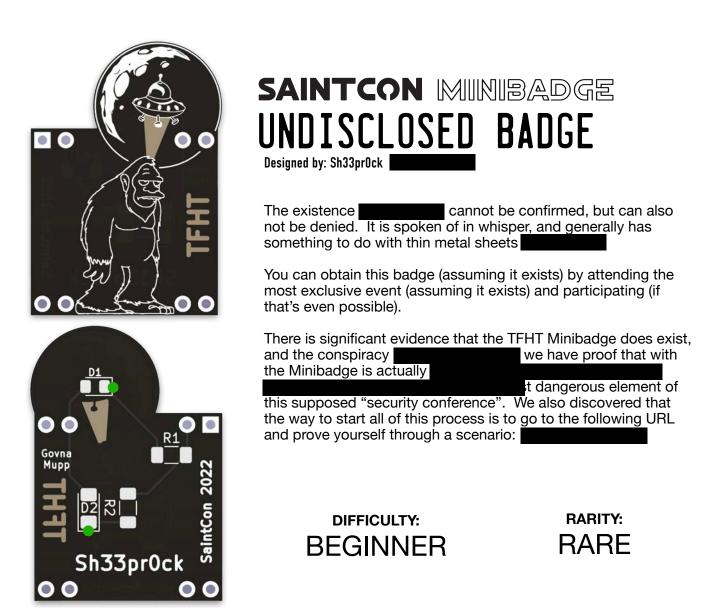
Simple Design



DIFFICULTY: BEGINNER



- Begin on the Back side first.
- LED Direction indicators are on the image above.
- Solder the LEDs first, using the single-pad method for hand soldering.
- Solder the resistor using the single-pad method for hand soldering.
- Solder the 4x 2-Position headers.



- · Begin on the Back side first.
- LED Direction indicators are on the image above.
 - D1 LED is a color-Changing LED (Arrow points to the Green-Dot marked above)
 - D2 LED is a solid Color LED
- Solder the LEDs first, using the single-pad method for hand soldering.
- Solder the resistors using the single-pad method for hand soldering.
 - R1 is the PURPLE Resistor
 - R2 is the GREEN Resistor
- Solder the 4x 2-Position headers.



SAINTCON MINIBADGE VENT EVENT BADGE Designed by: Jup1t3r

The VENT event is the newest event at SAINTCON this year, allowing security professionals an opportunity to speak and tell stories "off the record".

To get one of these MiniBadges, you will need to attend and participate in the VENT event.

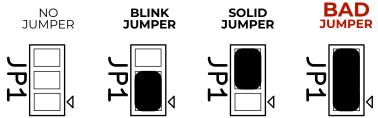


DIFFICULTY: BEGINNER



ASSEMBLY INSTRUCTIONS:

- Begin on the Back side first.
- LED Direction indicators are on the image above.
- Solder the LEDs first, using the single-pad method for hand soldering.
- Solder the resistor using the single-pad method for hand soldering.
- Solder either the BLINK or SOLID size of the Jumper depending on your preference.



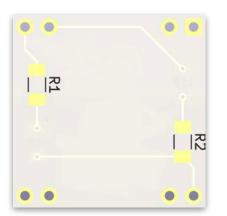
• Solder the 4x 2-Position headers.



SAINTCON MUNIBADGE VAULT BADGE Designed by: Jup1t3r

The Vault is a physical security bypass challenge. This event is run by JC and Snow from Snowfensive.

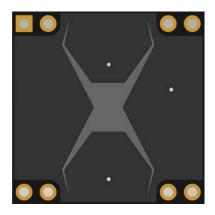
The Vault MiniBadge can be obtained by participating or observing others participate in the Vault Challenge, and is handed out at the Vault Area.



DIFFICULTY: BEGINNER



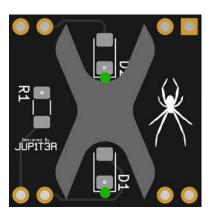
- Begin on the Front side first.
- LED Direction indicators are on the image above.
- Solder the LEDs first, using the single-pad method for hand soldering.
- Turn the badge over.
- Solder the resistors using the single-pad method for hand soldering.
- Solder the 4x 2-Position headers.



SAINTCON MUNIBADGE WIDOW BADGE Designed by: Jup1t3r

The Widows of SAINTCON are primarily the women spouses of the conference organizers of the conference. This Badge was designed to honor their efforts of being widowed for so much time during the planning and execution of the conference.

This badge is not generally available, and is given to members of the SAINTCON Widows group.



DIFFICULTY: BEGINNER



- Begin on the Back side first.
- LED Direction indicators are on the image above.
- Solder the LEDs first, using the single-pad method for hand soldering.
- Solder the resistor using the single-pad method for hand soldering.
- Solder the 4x 2-Position headers.
- For a better lighting effect, you can use HOT GLUE to cover the LEDs and the unmasked area on the back of the Minibadge.



SPONSORS MINIBADGES

The following badges are those created for our sponsors.



SAINTCON MUNIBADGE ARCTIC WOLF MINIBADGE Designed by: Jup1t3r

Arctic Wolf is one of our awesome sponsors. This badge is designed to oscillate between BLUE and ORANGE LED colors, backlighting the silhouette wolf logo using the clock for the badge to drive the blinking.

This badge can be acquired from the great folks at the Arctic Wolf sponsor booth, or in other ways they see fit to distribute them.



DIFFICULTY: BEGINNER



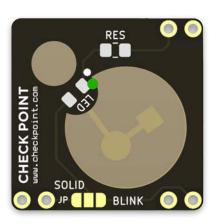
- Begin on the back side first.
- LED Direction indicators are on the image to the left.
- Solder the two LEDs first, using the single-pad method for hand soldering.
 ORANGE LED goes on the LEFT side.
 BLUE LED goes on the RIGHT side.
- Solder the Resistors using the same single-pad method for hand soldering.
 ORANGE Resistor goes on the RIGHT side.
 BLUE Resistor goes on the LEFT side.
- Solder the 4x 2-Position headers.
- For a better lighting effect, you can use HOT GLUE to cover the LEDs and the unmasked area on the back of the Minibadge.



SAINTCON MINIBADGE CHECKPOINT MINIBADGE Designed by: Jup1t3r

Checkpoint is one of our 2022 Sponsors, and they elected to have is design and build them a Minibadge to show off their new logo design.

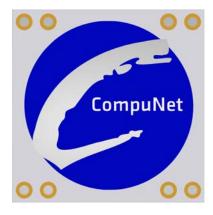
You can obtain this MiniBadge by visiting the Checkpoint Sponsor Booth and interacting with their staff.



DIFFICULTY: BEGINNER



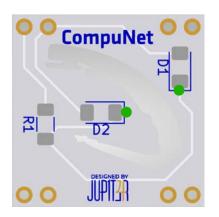
- Begin on the Back side first.
- LED Direction indicators are on the image above.
- Solder the LED first, using the single-pad method for hand soldering.
- Solder the resistor using the single-pad method for hand soldering.
- Solder the 3x 2-Position headers.
- For a better lighting effect, you can use HOT GLUE to cover the LEDs and the unmasked area on the back of the Minibadge.





Compunet is one of our 2022 Sponsors.

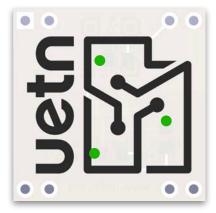
You can obtain this MiniBadge by visiting the Compunet Sponsor Booth and interacting with their staff.



DIFFICULTY: BEGINNER



- Begin on the Back side first.
- LED Direction indicators are on the image above.
- Solder the LEDs first, using the single-pad method for hand soldering.
- Solder the resistor using the single-pad method for hand soldering.
- Solder the 4x 2-Position headers.



SAINTCON MUNIBADGE UETN SPONSOR BADGE Designed by: Jup1t3r

UETN is SAINTCON's longest supporting sponsor. This organization was part of the initial founding of SAINTCON many years ago. Jup1t3r is a proud employee of this great organization which serves the public education, state government, and rural tele-health systems.

You can obtain this badge by finding a UETN employee and interacting with them.



DIFFICULTY: BEGINNER



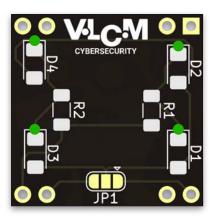
- Begin on the FRONT side first.
- LED Direction indicators are on the image above. They are also noted as a small DOT on the circuit-board itself.
- Solder the LEDs first, using the single-pad method for hand soldering.
- Solder the resistor on the back using the single-pad method for hand soldering.
- Solder the 4x 2-Position headers.



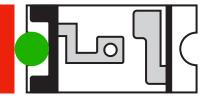
SAINTCON MUNIBADGE VALCOM SPONSOR BADGE Designed by: Jup1t3r

Valcom ("VLCM") is SAINTCON'S UBER sponsor for 2022, and we could not be more excited to have them partner with us at this level. Their Minibadge design is of a rabid ferret, which is Valcom's Cybersecurity mascot.

To get one of these MiniBadges, please visit the Valcom booth in the expo center.



LED ORIENTATION WARNING NOTE: This LED has poor markings for polarity. Please reference the image above to ensure you have the LED installed the right direction.

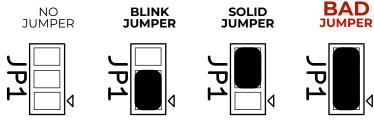


DIFFICULTY: BEGINNER



ASSEMBLY INSTRUCTIONS:

- Begin on the Back side first.
- LED Direction indicators are on the image above.
- Solder the LEDs first, using the single-pad method for hand soldering.
- Solder the resistor using the single-pad method for hand soldering.
- Solder either the BLINK or SOLID size of the Jumper depending on your preference.



• Solder the 4x 2-Position headers.



PERSONAL MINIBADGES

The following badges are contributed by various minibadge creators and are included here for reference. Any issues with these badges should be referred to the creator.

PAGES ARE SORTED BY DESIGNER NAME

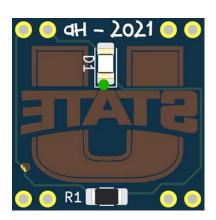


SAINTCON MIINIBADGE UTAH STATE UNIVERSITY

Designed by: Ay.Aitch

SAINTCon is a highlight for several USU employees to attend. Go Aggies!

This is a trader minibadge for the USU attendees, you may be awarded one by trading other unique badges, wearing Aggie gear, or maybe even belting out a rendition of the Scotsman!



DIFFICULTY: BEGINNER

RARITY: UNCOMMON

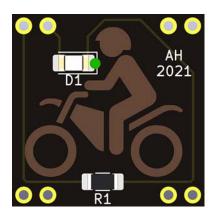
- Solder the LED with the cathode down
- Solder on the resistor
- · Solder on the header pins
- For a better lighting effect, you can use HOT GLUE to cover the LEDs and the unmasked area on the back of the Minibadge.



SAINTCON MUNIBADGE AH • MOTO Designed by: Ay.Aitch

This is one badge in a series of "things I like to do..."

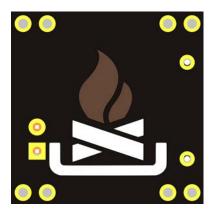
If you also like riding motorcycles, especially dirt bikes on single track trails, hit me up and tell me a story, show me a pic, or trade me for another unique minibadge.



DIFFICULTY: BEGINNER



- · Solder the LED as indicated in the picture
- Solder on the resistor
- Solder on the header pins

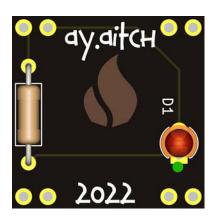


SAINTCON MINIBADGE

Designed by: Ay.Aitch

This is another badge in a series of "things I like to do...". It features a flickering LED that will hopefully look like a campfire burning when lit.

If you also like camping, being outdoors, making smores, and such, hit me up and tell me a story, show me an outdoor pic, or trade me for another unique minibadge.

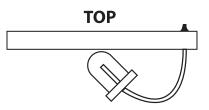


DIFFICULTY: BEGINNER



ASSEMBLY INSTRUCTIONS:

• Solder the LED as indicated in the picture, leave the lead wires long enough to bend the LED over to be in the middle of the badge, like this:

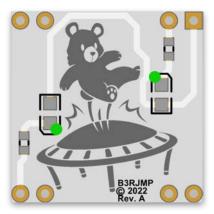


- Solder on the resistor
- Solder on the header pins





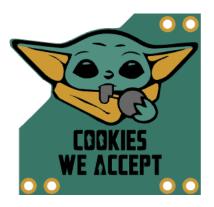
Find B3rJmp for one of these.



DIFFICULTY: BEGINNER

RARITY: SUPER RARE

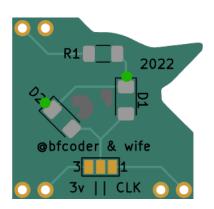
- · Start on the Back of the Circuit Board
- Solder the Resistors using a single-pad soldering method. They are small, so it's easier to start with them first.
- Solder the LEDs using the single-pad soldering method. See the diagram above to ensure you use proper orientation.
- Solder the 4x 2-Position headers.
- For a better lighting effect, you can use HOT GLUE to cover the LEDs and the unmasked area on the back of the Minibadge.





Baby Yoda eating a cookie and barfing.

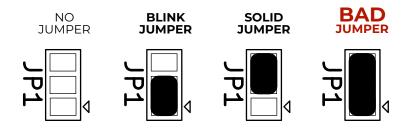
To get this MiniBadge, trade with bfcoder.

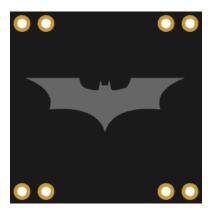


DIFFICULTY: BEGINNER



- Begin on the back side first.
- LED direction indicators are on the image above.
- Solder the resistor first, using the single-pad method for hand soldering.
- Solder the LED's using the single-pad method for hand soldering.
- Bridge the Jumper to either make it Blink or Solid illumination.
- Solder the 3x 2-position headers.

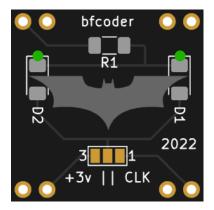




SAINTCON MUNIBADGE BAT SYMBOL AND SIGNAL Designed by: bfcoder

These are two separate badges, with a similar design and assembly method, so they are included together here.

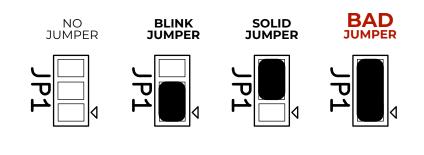
To get this MiniBadge, trade with bfcoder.

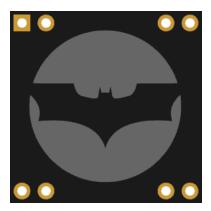


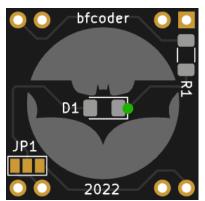
DIFFICULTY: BEGINNER



- Begin on the back side first.
- LED direction indicators are on the image above.
- Solder the resistor first, using the single-pad method for hand soldering.
- Solder the LED's using the single-pad method for hand soldering.
- Solder either the BLINK or SOLID set of the Jumper depending on your preference.





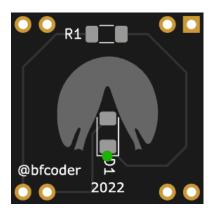




SAINTCON MUNIBADGE HORSE HOOF BADGE Designed by: bfcoder

This is the barefoot horse hoof badge, by bfcoder. You will have to ask him what it's all about.

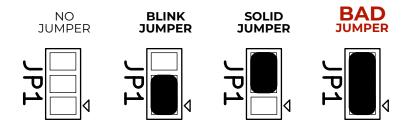
To get this MiniBadge, trade with bfcoder.



DIFFICULTY: BEGINNER



- Begin on the back side first.
- LED direction indicators are on the image above.
- Solder the resistor first, using the single-pad method for hand soldering.
- Solder the LED's using the single-pad method for hand soldering.
- Bridge the Jumper to either make it Blink or Solid illumination.
- Solder the 4x 2-position headers.

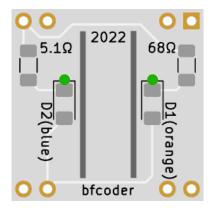




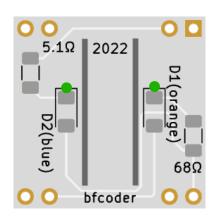


This Portal 2 Fandom badge comes in two versions, One with solid lights, and one that blinks.

To get one of these minibadges, come trade with me.







DIFFICULTY: BEGINNER

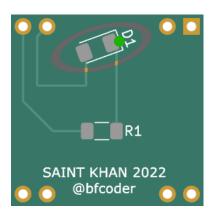


- Begin on the back side first.
- LED direction indicators are on the image above.
- Solder the resistor first, using the single-pad method for hand soldering.
- Each resistor is paired with the color of LED. The pairing matters!
- Solder the 5.10hm on the left side with the blue LED.
- Solder the 68ohm on the right side with the orange LED.
- Solder the LED's using the single-pad method for hand soldering.
- Solder the 4x 2-position headers.
- For a better lighting effect, you can use HOT GLUE to cover the LEDs and the unmasked area on the back of the Minibadge.





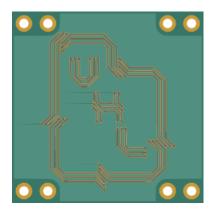
Khan from Star Trek, but with a Halo. Hence, Saint Khan. To get this MiniBadge, come trade with me.



DIFFICULTY: BEGINNER



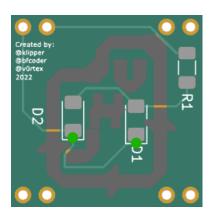
- Begin on the back side first.
- LED direction indicators are on the image above.
- Solder the resistor first, using the single-pad method for hand soldering.
- Solder the LED's using the single-pad method for hand soldering.
- Solder the 4x 2-position headers.



SAINTCON MUNIBADGE UTAH HOME LABS BADGE Designed by: bfcoder, klipper, v0rtex

This is the UHL Group Minibadge.

We will be selling these for donations to UHL at the HomeLabs Community Booth.



DIFFICULTY: BEGINNER

RARITY:

- Begin on the back side first.
- LED direction indicators are on the image above.
- Solder the resistor first, using the single-pad method for hand soldering.
- Solder the LED's using the single-pad method for hand soldering.
- Solder the 4x 2-position headers.



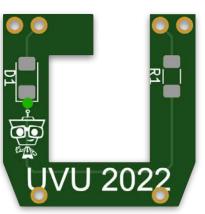
SAINTCON MINIBADGE

Designed by: Brian Peterson

Go Wolverines!

The UVU Minibadge shows the pride of that school.

To get one of these MiniBadges, find one of the UVU folks, and either trade or social-engineer one of these.



DIFFICULTY: BEGINNER RARITY:

- Start on the back side first
- Solder the LED first, use the single-pad soldering method.
- Solder the Resistor, orientation doesn't matter
- Solder the Pin Headers, you may need to cut one in half to fit on the bottom.



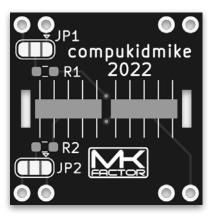
SAINTCON MUNIBADGE COMPUKIDMIKE BADGE Designed by: CompuKidMike

CompuKidMike never disappoints, as a premiere badge designer, with several years designing the SAINTCON badge, but also now a multi-year designer of the DEF CON badge.

To get this MiniBadge, interact with CompuKidMike at either the BadgeLife Community, or in other areas of the conference.

RARITY:

COMMON



DIFFICULTY: BEGINNER



- Badge will be pre-assembled except for:
- Solder the 4x 2-Position headers.





SAINTCON MUNIBADGE HONKI BADGE Designed by: COn4rt15t & CompuKidMike

When you hear it, you will know. We LOVE to make it Honk!

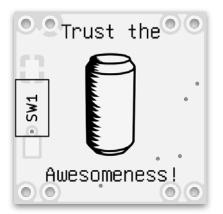
To get one of these bad boys, you will need to interact with Honki.



DIFFICULTY: BEGINNER



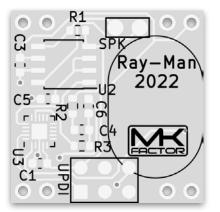
- This badge will be mostly pre-assembled
- Solder the SW on the top side.
- Solder the Speaker on the bottom side.
- Attach the speaker with double-sided tape.
- Solder the 4x 2-Position headers.





When you hear it, you will know. We LOVE to make it Honk!

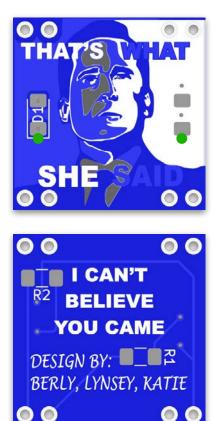
To get one of these bad boys, you will need to interact with Honki.



DIFFICULTY: BEGINNER



- This badge will be mostly pre-assembled
- Solder the SW on the top side.
- Solder the Speaker on the bottom side.
- Attach the speaker with double-sided tape.
- Solder the 4x 2-Position headers.





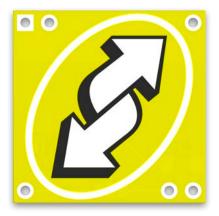
For you Office fans, this is one of the iconic badges you need to collect.

To get this badge, interact with one of the designers listed above.

DIFFICULTY: BEGINNER



- Begin on the Back side first.
- Solder the resistors, using the single-pad method for hand soldering.
- On the Front:
- Solder the LEDs first, using the single-pad method for hand soldering.
- Solder the 4x 2-Position headers.



SAINTCON MINIBADGE BERLY MINIBADGE

Designed by: Jup1t3r

Berly is the spouse of Jup1t3r, and she had the best idea for a UNO reverse-card MiniBadge, so we built it together.

It features two LEDs, that can be configured to either stay on solid, or blink off and on.

R1 SOLID BLINK

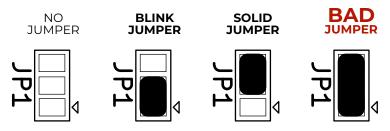
Obtaining this MiniBadge will require you to interact in a positive way with Berly as she makes her way around the conference.

DIFFICULTY: BEGINNER

RARITY:

ASSEMBLY INSTRUCTIONS:

- Begin on the back side first.
- LED Direction indicators are on the image above.
- Solder the two LEDs first, using the single-pad method for hand soldering.
- Solder the Resistor using the same single-pad method for hand soldering.
- Solder the Jumper at the bottom of the board, bridging EITHER the SOLID or BLINK side, Never Solder across all three.



• Solder the 3x 2-Position headers. Cut one in Half to use in the 1-pin corners.



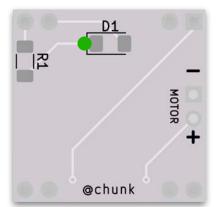
SAINTCON MIINIBADGE CHUNK BADGE

Designed by: Jup1t3r

The Chunk Minibadge is our homage to our favorite @Chunk. It's great to have him back and involved with SAINTCON.

This badge features a vibrating motor to make the "Truffle Shuffle" effect complete.

To get this Minibadge, interact with Chunk!



DIFFICULTY: BEGINNER

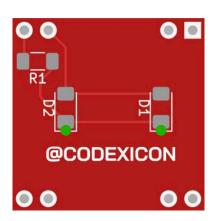


- Start on the back side.
- Solder the LED using the single-pad soldering method. Orient the LED so that the green marker lines up with the diagram above.
- Solder the resistor using the single-pad soldering method.
- Next attach the Motor (If included) using the foam sticker already attached.
- Cross the wires so that the RED wire goes through the POSITIVE motor hole. — Carefully strip the wire so that you can solder it to the appropriate hole.
- Turn the badge over, and solder the switch using the single-pad soldering method.
- Attach the four 2-position pin headers



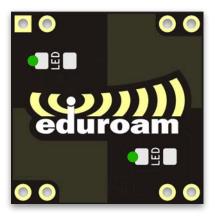


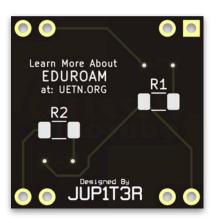
Personal Badge built by Jup1t3r for his son @codexicon. To get this badge, you will need to interact with Codexicon.



DIFFICULTY: BEGINNER RARITY:

- Begin on the Back side first.
- LED Direction indicators are on the image above.
- Solder the LEDs first, using the single-pad method for hand soldering.
- Solder the resistor using the single-pad method for hand soldering.
- Solder the 4x 2-Position headers.





SAINTCON MINIBADGE EDUROAM MINIBADGE Designed by: Jup1t3r

EDUROAM is a consortium of education networks that work together to provide federated WiFi access across campuses throughout the world.

You can acquire this MiniBadge by interacting with a UETN employee who helps administer this program within the State of Utah.

DIFFICULTY: BEGINNER



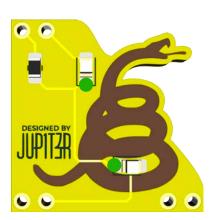
- Begin on the Front side first.
- LED Direction indicators are on the image above.
- Solder the LEDs first, using the single-pad method for hand soldering.
- Turn the badge over and solder the resistors.
- Solder the 4x 2-Position headers.



SAINTCON MUNIBADGE GADSEN FLAG BADGE Designed by: Jup1t3r

The Gadsen Flag badge is the badge from 2021 which is back in a small run for 2022. Originally created to give to people who felt oppressed by the mask mandate of 2021, this was a beautiful badge I have grown to love.

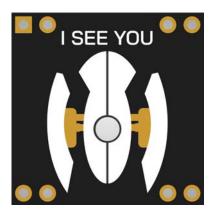
To get this badge: Get one from @Jup1t3r while they last.



DIFFICULTY: BEGINNER

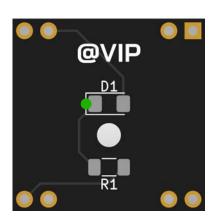


- Start on the back side.
- Solder the LEDs using the single-pad soldering method. Orient the LED so that the green marker lines up with the diagram above.
- Solder the resistor using the single-pad soldering method.
- Attach the three 2-position headers





Personal Badge built by Jup1t3r for his nephew VIP. To get this badge, you will need to interact with VIP.



DIFFICULTY: BEGINNER RARITY:

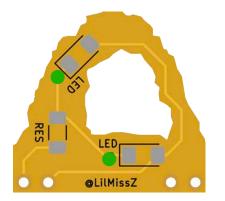
- Begin on the Back side first.
- LED Direction indicators are on the image above.
- Solder the LEDs first, using the single-pad method for hand soldering.
- Solder the resistor using the single-pad method for hand soldering.
- Solder the 4x 2-Position headers.



SAINTCON MUNIBADGE LILMISSZ BADGE Designed by: Jup1t3r

Designed for @LilMissZ, and because her favorite place is Arches National Park! This badge features Delicate Arch, a Utah Icon!

To get this Minibadge, find @LilMissZ and trade.



DIFFICULTY: BEGINNER

RARITY:

- Start on the back side.
- Solder the LEDs using the single-pad soldering method. Orient the LED so that the green marker lines up with the diagram above.
- Solder the resistor using the single-pad soldering method.
- Attach the two 2-position headers



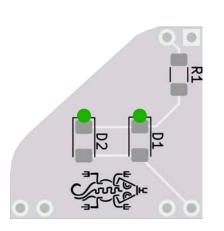
SAINTCON MINIBADGE MACHETE BADGE

Designed by: Jup1t3r

The Machete badge is the personal badge for @sirashrum.

To get this badge:

- Find and meet @sirashrum
- Tell him an embarrassing story
- Tell him how you got your handle
- · Do Both of the above



DIFFICULTY: BEGINNER



- Start on the back side.
- Solder the LEDs using the single-pad soldering method. Orient the LED so that the green marker lines up with the diagram above.
- Solder the resistor using the single-pad soldering method.
- Attach the three 2-position headers



SAINTCON MUNIBADGE PORTAL BADGE Designed by: Jup1t3r

Being a fan of the Portal Games, Jup1t3r has built a fan Minibadge for the other Portal Fans out there.

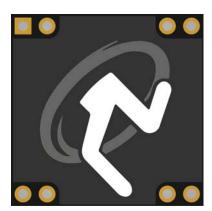
This is a two-badge set. One Features ORANGE backlight, and the other one features BLUE backlight.

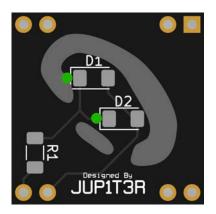
To get this MiniBadge set find Jup1t3r and interact with him. It's preferred that you interact with him while at the BadgeLife Community Booth.

RARITY:

RARF

D1 D2 D2





ASSEMBLY INSTRUCTIONS:

DIFFICULTY:

BEGINNER

- Begin on the Back side first.
- LED Direction indicators are on the images to the left.
- Solder the LEDs first, using the single-pad method for hand soldering. Do not Mix LED colors between badges.
- Solder the resistor using the single-pad method for hand soldering.
- Solder the 4x 2-Position headers.
- For a better lighting effect, you can use HOT GLUE to cover the LEDs and the unmasked area on the back of the Minibadge.

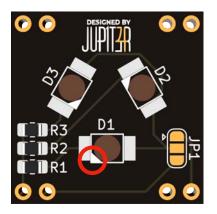




SAINTCON MUNIBADGE RADIATION MINIBADGE Designed by: Jup1t3r

This is a re-run from 2021, and back by popular demand.

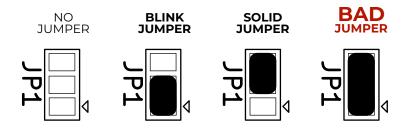
To get on of these Minibadges, see Jup1t3r before he runs out of them.



DIFFICULTY: BEGINNER



- Begin on the BACK side first.
- LED Direction indicator is on the image above.
- Solder the LEDs first, using the single-pad method for hand soldering.
- Solder each of the 3 resistors
- Solder the Jumper using a pattern outlined below.
- Solder the 4x 2-Position headers.



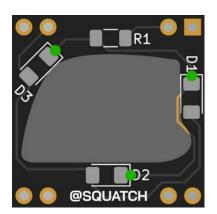




Personal Badge built by Jup1t3r for his nephew SQUATCH.

SRT is: Sasquatch Research Team

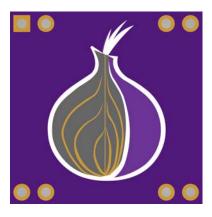
To get this badge, you will need to interact with Squatch.



DIFFICULTY: BEGINNER



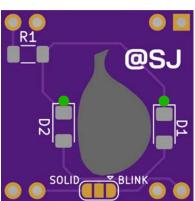
- Begin on the Back side first.
- LED Direction indicators are on the image above.
- Solder the LEDs first, using the single-pad method for hand soldering.
- Solder the resistor using the single-pad method for hand soldering.
- Solder the 4x 2-Position headers.
- For a better lighting effect, you can use HOT GLUE to cover the LEDs and the unmasked area on the back of the Minibadge.



SAINTCON MUNIBADGE TOR BADGE Designed by: SJ

The Onion Router (TOR), more commonly known as the Dark Web. This badge is designed by @SJ.

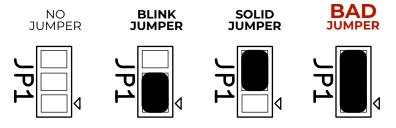
To get this badge, you will need to find, and interact with @SJ



DIFFICULTY: BEGINNER

rarity: UNCOMMON

- Begin on the Back side first.
- LED Direction indicators are on the image above.
- Solder the LEDs first, using the single-pad method for hand soldering.
- Solder the resistor using the single-pad method for hand soldering.
- Add Solder to bridge either the BLINK or SOLID jumper (SEE BELOW)
- Solder the 4x 2-Position headers.
- For a better lighting effect, you can use HOT GLUE to cover the LEDs and the unmasked area on the back of the Minibadge.





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JUPITAR

SAINTCON MUNIBADGE VADER BADGE Designed by: Jup1t3r

The Darth Vader Minibadge is the one that will be super-rare. Not very many exist, and they are intended to be for Jup1t3r to give to people who have made significant contributions to the conference. So if you see someone wearing this one around, you can safely thank them for working Hard to make SAINTCON a success.

This Minibadge is NOT in general circulation. Please don't ask Jup1t3r for one.

DIFFICULTY:



- Please watch the Online Video on how to assemble this MiniBadge.
- Video can be found here.







SAINTCON MINIBADGE YODA BADGE Designed by: Jup1t3r

One of my coolest ideas for a MiniBadge to date. When I saw the LED filament technology, it just screamed lightsaber to me. Im proud to bring Yoda to SAINTCON this year.

To get a Yoda Minibadge, you will have to find Jup1t3r and trade a MiniBadge, or introduce yourself and tell him what you like or dislike about SAINTCON

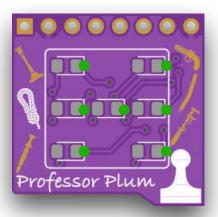
While supplies last of course.

DIFFICULTY: BEGINNER



- Please watch the Online Video on how to assemble this MiniBadge.
- Video can be found here.

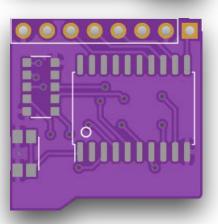




SAINTCON MUNIBADGE CLUE DICE Designed by: Professor Plum

Simple D6 roller, press the side button for a new roll.

Obtainable from Professor Plum via trading



DIFFICULTY: RARITY: INTERMEDIATE SUPER RARE

ASSEMBLY INSTRUCTIONS:

- Solder the 7 LEDs first
- Flip the badge over and solder The 10 leg resistor, orientation doesn't matter
- Solder the ATTiny next, pin 1 is marked with the small circle, it should be nearest to the button.
- Solder the Botton and then the header row.

•THIS BADGE NEEDS PROGRAMMING

Once the soldering is complete visit the HHC to program the ATTiny

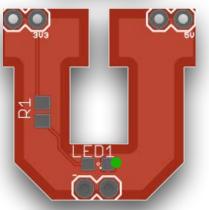


SAINTCON MIINIBADGE

Designed by: Professor Plum

Go Utes!

To get one, find Professor Plum and show your support for the University of Utah



DIFFICULTY: BEGINNER

RARITY:

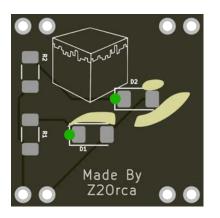
- Solder the LED first
- Solder the resister, orientation doesn't matter
- Solder the 3x 2-pin headers



SAINTCON MUNIBADGE KILLER WHALE BADGE Designed by: Z20rca

This MiniBadge was designed as a personal icon by a first-time badge maker and first-time SAINTCON attendee. It is representative of his namesake handle, the Killer Whale.

To get one of these MiniBadges, you will need to talk with him and share a bit of knowledge about what you do, know, or love.



DIFFICULTY: BEGINNER



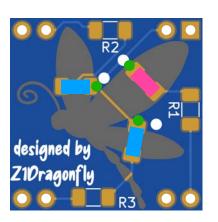
- Begin on the Back side first.
- LED Direction indicators are the green dots on the image above.
- Solder the LEDs first, using the single-pad method for hand soldering.
- Solder the resistors next, using the single-pad method for hand soldering.
- Solder the 4x 2-Position headers, with the Killer Whale art facing out.



SAINTCON MUNIBADGE DRAGONFLY Designed by: Z1Dragonfly

This MiniBadge was designed as a personal icon for a first-time SAINTCON attendee and life-long hacker. It is representative of her namesake handle, the Dragonfly. She is a passionate learner and inquisitive soul.

To get one of these MiniBadges, you will need to talk with her and help her level up in the quest for knowledge.



DIFFICULTY: BEGINNER



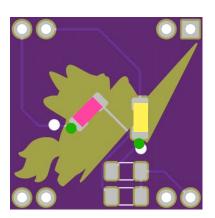
- Begin on the Back side first.
- LED Direction indicators are the white dots on the badge, or green dots on the image above.
- Solder the LEDs first, using the single-pad method for hand soldering.
- Solder the resistors next, using the single-pad method for hand soldering.
- Solder the 4x 2-Position headers, with the Dragon Fly and Flower art facing out.
- For a better lighting effect, you can use HOT GLUE to cover the LEDs and the unmasked area on the back of the Minibadge.



SAINTCON MUNIBADGE UNIKITTY Designed by: Z3Thunder

This MiniBadge was designed as a personal icon for my daughter, lover of Unicorns and Kitty whisperer. This one just happens to be riding a lightning bolt.

To get one of these MiniBadges, just ask her for one, she'd especially love to trade.



DIFFICULTY: BEGINNER

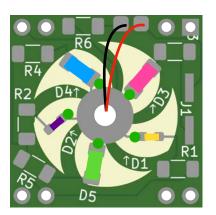


- Begin on the Back side first.
- LED Direction indicators are the white dots on the badge, or green dots on the image above.
- Solder the LEDs first, using the single-pad method for hand soldering.
- Solder the resistors next, using the single-pad method for hand soldering.
- Solder the 4x 2-Position headers, with the Text side facing out.
- For a better lighting effect, you can use HOT GLUE to cover the LEDs and the unmasked area on the back of the Minibadge.



SAINTCON MUNIBADGE BLOWN AWAY BY ZEVLAG (AGAIN) Designed by: Zevlag

You've just acquired A LOT of parts. 20 to be exact. I hope you have lots of fun assembling this badge. It has a micro motor mounted to the PCB that will spin with a custom 3D-printed fan blade designed by my son. There is also a jumper with cap that can be used to turn off the motor, but leave the LEDs on.



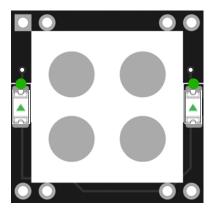
I've arranged the LEDs on the image to the left in the pattern that looks best. I'm sorry about the two smaller 0603 size LEDs, that's what happens when you accidentally order 4,000 from China!

To get one of these MiniBadges, find Zevlag and convince him to give you one (bribes work).

DIFFICULTY: ADVANCED



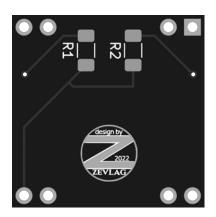
- Begin on the Back side. Be careful not to bust the motor off the PCB. If needed, a very careful drop of super glue will reattach firmly it after you finish assembly.
- Solder the 5 LEDs first, according to the pattern indicated above.
 - To have the color properly illuminate the badge, the LEDs need to be soldered upside down, with the clear part facing the board, and the orientation arrow showing towards you.
 - All LEDs orient with the cathode toward the center.
- · Solder the 6 resistors next, using the single-pad method for hand soldering.
- Solder motor wires to the pads at the top, near R6. Just put a bit of solder on the pad, then put the wire end in it, holding the wire in place while the solder cools.
- Solder the SMD 2 pin header to J1. This is easiest done using the single-pad method for hand soldering, and tweezer to hold the pins in place. Place the cap on both pins when done, this is the "ON" position. "OFF" is with the cap on 1 pin.
- Solder the 4x 2-Position headers, with the Blown Away art facing out.
- Locate the hole in the center of one side of the blade and while holding the bottom of the motor Carefully push the fan blade onto the motor shaft.



SAINTCON MUNIBADGE LEGO BADGE Designed by: Zevlag

The iconic DIY project, everybody's favorite brick, Lego! This minibadge sports the design of a 2x2 Plate for attaching your favorite (mini) builds.

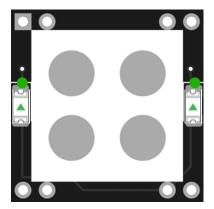
To get one of these MiniBadges, find Zevlag and convince him to give you one (bribes work).



DIFFICULTY: BEGINNER



- Begin on the Back side first.
- Solder the two resistors, using the single-pad method for hand soldering.
- On the front, solder the two LEDs, upside down.
 - This badge is best experienced with the LEDs soldered upside down, with the clear part facing the board, and the orientation arrow pointing out.
 - This requires a slightly larger blob of solder on both ends.
- Solder the 4x 2-Position headers, with the Lego art facing out.
- (Optional) For an awesome experience, and to attach Lego's to your minibadge, a drop of <u>Kragle</u> (any fast drying super glue) will work to simply attach a lego plate (not included).



SAINTCON MIINIBADGE LEGO BADGE WITH MINI-FIGURE

Designed by: Zevlag

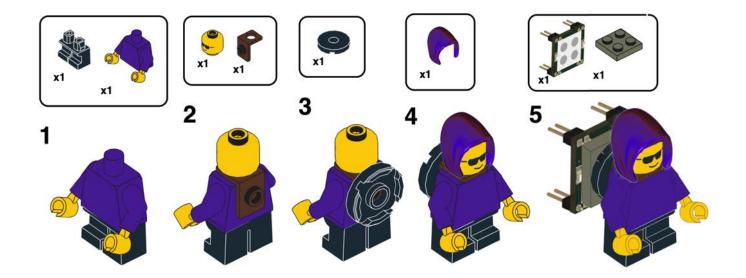
The iconic DIY project, everybody's favorite brick, Lego! This minibadge sports a 2x2 Plate for attaching your favorite (mini) builds.

What's better than a minibadge? A minifig! You have been lucky enough to receive a custom painted Hackers Challenge themed minifig to adorn your Lego minibadge.

To get one of these MiniBadges, you'll need to have made significant contributions to Hackers Challenge this year.

DIFFICULTY: RARITY: BEGINNER SUPER RARE

- Follow the instructions on the previous page for "Lego Badge".
- Follow the minifig assembly instructions below.

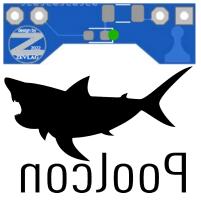




SAINTCON MUNIBADGE POOLCON Designed by: Zevlag

Poolcon is an informal event for SAINTCON Committee and Staff to wind down, debrief and relax. Friendships are made, problems are solved, and awesome stuff is planned for attendees.

To get one of these MiniBadges you need to be SAINTCON Committee, Staff, or Volunteer and talk to Zevlag and commit to contribute to the "2022 Lessons Learned" document.



DIFFICULTY:



- Begin on the Back side first.
- LED Direction indicator is on the image above.
- Solder the LED first, using the single-pad method for hand soldering.
 - To properly illuminate the acrylic, it should be soldered standing on its side, pointing into the plastic.
 - This requires a slightly larger blob of solder on both ends.
 - I'm sorry for the 0603 LED, that's what happens when I get 4,000 from China.
- Solder the resistors next, using the single-pad method for hand soldering.
- Solder the 2x 2-Position headers, with the SAINTCON art facing out.









SAINTCON MUNIBADGE MINNIE BADGE Designed by: T. Zevlag

This minibadge is a "Minnie Badge".

To get one of these MiniBadges, you must find T. Zevlag and convince her to give you one.

There are two color variations available.

NOTE: This badge has a minor Cosmetic Flaw! The silver dot marks the anode side of the LED's. Use the GREEN dot on this image as orientation reference for cathode.

DIFFICULTY: BEGINNER

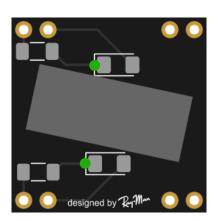


- Begin on the Back side first.
- LED Direction indicators are on the image and note above.
- Solder the 2 LEDs first, using the single-pad method for hand soldering.
- Solder the 2 resistors next, using the single-pad method for hand soldering.
- Solder the 4x 2-Position headers, with the Minnie Bow art facing out.
- For the best illumination effect cover the back, including LEDs with hot glue.



SAINTCON MUNIBADGE RAY-MAN 2022 Designed by: Ray-Man

This was my first attempt to create my own MiniBadge, I appreciate others that offered to do this for me, but were willing to take double the time in helping answer questions. So thank you Jup1t3r and others for answering my questions and double checking my work. It was much appreciated! I hope everyone that gets my badge has as much fun building it as I did creating it!



If you want my MiniBadge please find Ray-Man while wondering the con. We can exchange how we each got our handles, whether you came up with it yourself, or if you were "given" it by a mentor.

DIFFICULTY: BEGINNER



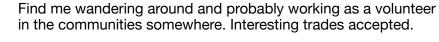
- Begin on the Back side first.
- LED Direction indicators are on the image above.
- Solder the LEDs first (the components in the middle of the badge), using the single-pad method for hand soldering.
- Solder the resistors (the components on the left) using the single-pad method for hand soldering.
- Solder the 4x 2-Position headers.
- For a better lighting effect, you can use HOT GLUE to cover the LEDs and the unmasked area on the back of the Minibadge.



33Pr0ck

SAINTCON MUNIBADGE KITT BADGE Designed by: Sh33pr0ck

KITT is a second run of my very first mini badge ever from 2018. 6 total and only 2 available. Runs off an attiny85 and may or may not already be prebuilt due to special circumstances i.e. because I crossed wires not knowing what I was doing. May have traditional red lights or alternative green.



Easy to assemble...see above.

DIFFICULTY: BEGINNER



ASSEMBLY INSTRUCTIONS:

This badge is pre-assembled



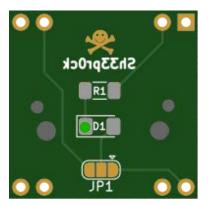


SAINTCON MINIBADGE

Designed by: Sh33pr0ck

DC435 Bus 2022. Design by ay.aitch

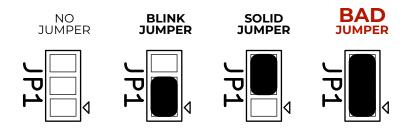
Find someone from DC435 and talk to them about our monthly meetups.



DIFFICULTY: BEGINNER

RARITY:

- Solder the LED using the single-pad soldering method. See the LED Cathode direction noted above.
- Solder the Resistor using the single-pad soldering method.
- Create a solder jumper on the left or right as seen below.



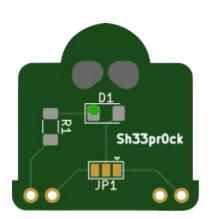


SAINTCON MINIBADGE HACKER SKULL

Designed by: Sh33pr0ck

Pretty much just a skull with red eyes.

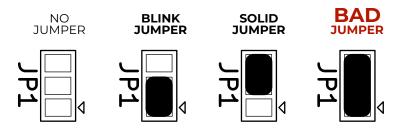
Find me wandering around. I'll trade for something I don't have.



DIFFICULTY: BEGINNER



- Cathode towards green dot.
- Bridge right two pads of JP1 for clock pin.
- Bridge left two pads of JP1 for normal 3.3v.







SAINTCON MINIBADGE DC435 ULTRA

Designed by: Sh33pr0ck

DC435 badge with Common Anode RGB LED powered by an ATTiny841. Use the pad on the right to cycle colors and the pad to the left to cycle through messages preloaded and using i2c. Messages can be seen on previous years badges or anything else capable of reading them. Use the ICSP to program it however you want.

Find me wandering around and trade something cool and unique. Very few available.

DIFFICULTY: RARITY: INTERMEDIATE SUPER RARE

- RGB and ATTiny will be pre-installed as there are no extras and are fairly difficult to hand solder and have all colors function.
- Resistor 106 goes to R4 and R5
- Resistor 510 goes to R2
- Resistor 1000 goes to R3
- Resistor 1500 goes to R1
- For programing yourself with ICSP use the following pins in Arduino:
 - Red = 2; Green = 3; Blue = 7; Right pad = 10; Left pad = 9
 - The pads are used as a traditional button.
 - ATTiny Core was used with Arduino.
 - Wire Mode: Slave Only and Pin Map: Counterclockwise (or the pins will be off)





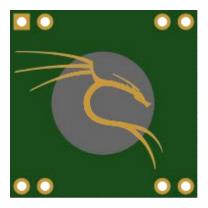
Alternative version to the TFHT minibadge. Built with inspiration from Mupp and Govna. Why wouldn't aliens want to abduct Sasquatch?

Trade me something cool and unique. Very few available. Find me wandering around.



RARITY: SUPER RARE

- Cathode towards the green dots.
- Resistor 95R3 goes to R2.
- Lay through hole LED towards the top with the LED over the "beam" of the spaceship (backside).
- Solder into place and trim extra.



SAINTCON MIINIBADGE KALI

Designed by: Sh33pr0ck

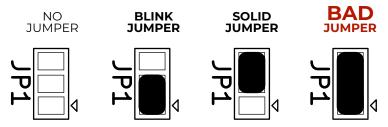
Inspired by Kali with credit to 2e08 and built by Sh33pr0ck. Intermediate only due to smaller part sizes.

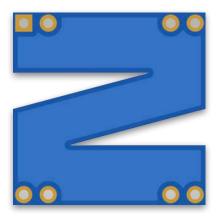
Find Sh33pr0ck or Nate and trade something unique.



DIFFICULTY: RARITY: INTERMEDIATE SUPER RARE

- Cathode towards the green dot.
- Bridge bottom two pads on JP1 for clock pin.
- OR Bridge top two pads on JP1 for normal 3.3v.
- For a better lighting effect, you can use HOT GLUE to cover the LEDs and the unmasked area on the back of the Minibadge.







I made a simple badge this year, but a lot of thought went into the "Z" design, or at least that's the story i'm sticking to.

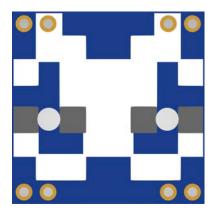
To get one of these badges, find me around the con.



DIFFICULTY: BEGINNER

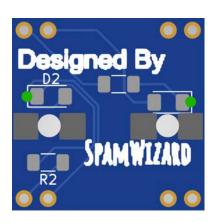


- Solder the LED using the single-pad soldering method.
- Solder the Resistor using the single-pad soldering method.
- Attach the four 2-position pin headers





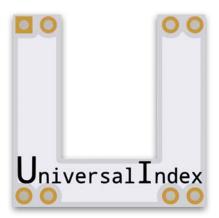
Designed by SpamWizard, the offspring of Zodiak. Find this kid, and beg for one?



DIFFICULTY: BEGINNER



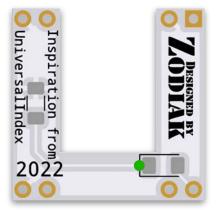
- Solder the LEDs using the single-pad soldering method.
- Solder the Resistors using the single-pad soldering method.
- Attach the four 2-position pin headers



SAINTCON MIINIBADGE UNIVERSALINDEX BADGE Designed by: Zodiak

Designed by Zodiak, for the UniversalIndex.... You get to figure out who that is.

Find this kid, and beg for one?



DIFFICULTY: BEGINNER



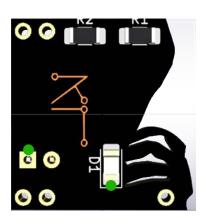
- Solder the LED using the single-pad soldering method.
- Solder the Resistor using the single-pad soldering method.
- Attach the four 2-position pin headers



SAINTCON MUNIBADGE PHISHERATU BADGE Designed by: DistinctM1nd

Designed by DistinctM1nd.

No details were provided on how to acquire this MiniBadge.



DIFFICULTY: BEGINNER



- Start on the back
- Solder the SMD LED using the single-pad soldering method.
- Solder the Resistors using the single-pad soldering method.
- On the Front Side: Attach the LED with the long-lead through the CIRCLE hole.
- Attach the Pin Headers



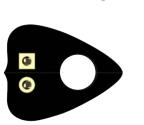


Designed by DistinctM1nd.

No details were provided on how to acquire this MiniBadge.

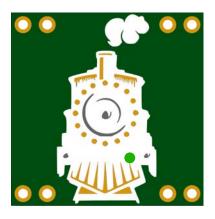


DIFFICULTY: BEGINNER



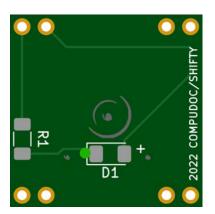


- Start on the back
- Solder the SMD LED using the single-pad soldering method.
- Solder the Resistor using the single-pad soldering method.
- On the Front Side: Attach the Selector using the extra Pin Headers provided.
- Attach the 4x 2-position Pin Headers





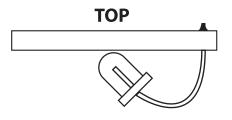
To get this Minibadge, HollyHacker is interested in trading, but is also interested in networking.



DIFFICULTY: RARITY: INTERMEDIATE SUPER RARE

ASSEMBLY INSTRUCTIONS:

- Begin on the Back side first.
- Solder the Resistor first, using the single-pad soldering method.
- Attach the LED from the BOTTOM. It will need enough length to be bent to point the LED upward to backlight the board. LONG-LEG goes through the Circle hole.



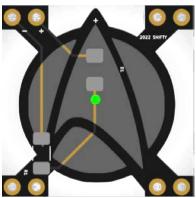
• Solder the 4x 2-Position headers.





From the Mind of SHIFTY, this minibadge shows how much of a fan of Star Trek SHIFTY is.

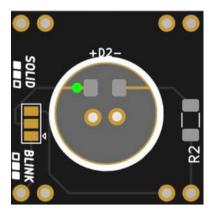
To get one of these badges, please find SHIFTY and either trade or provide some type of "Bribe"



DIFFICULTY:

RARITY: BEGINNER SUPER RARE

- Start on the back
- Solder the SMD LED using the single-pad soldering method. See the LED orientation mark above.
- Solder the Resistor using the single-pad soldering method.
- Attach the 4x 2-position Pin Headers



SAINTCON MUNIBADGE STARFLEET SERIES BADGE Designed by: SHIFTY

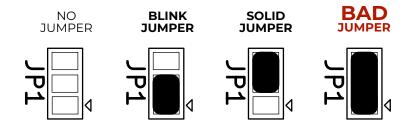
The Starfleet series badge comes in several types with different factions center emblems. There may even be one with an Enterprise emblem.

To get one of these badges, find Ray-Man and convince him that you need to represent one of these factions.





- Start on the BACK: Solder the SMD LED using the single-pad soldering method.
- Solder the back Resistor using the single-pad soldering method.
- Turn over to the FRONT: Solder the front Resistor using the single-pad soldering method.
- Solder the front LED using the single-pad soldering method.
- Use the extra header pins to attach the provided faction emblem.
- Bridge the Jumper to either make it Blink or Solid illumination.
- Attach the 4x 2-position Pin Headers

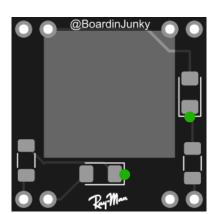




SAINTCON MINIBADGE BOARDINJUNKY

Designed by: Ray-Man

This MiniBadge was designed by Ray-Man. Ray-Man told BoardinJunky that as this was his first SAINTCON he needed something to force him to network with others within this great community!



To get BoardinJunky's MiniBadge please find him while wondering the con. Introduce yourself and your story on why you come to SAINTCON. (If you need help tracking down BoardinJunky, talk to Ray-Man, hopefully he can point you in the right direction.)

DIFFICULTY: BEGINNER



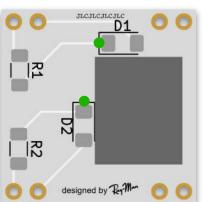
- Begin on the Back side first.
- LED Direction indicators are on the image above.
- Solder the LEDs first (the components on left-middle and bottom-center of the badge), using the single-pad method for hand soldering.
- Solder the resistors (the components right above bottom header pins) using the single-pad method for hand soldering.
- Solder the 4x 2-Position headers.





This MiniBadge was designed exclusively the **Family Night Event**.

If you want this MiniBadge please find Ray-Man while wondering the Family Night and tell him why you want/need one.



DIFFICULTY: BEGINNER



- Begin on the Back side first.
- LED Direction indicators are on the image above.
- Solder the LEDs first (Labeled D1 & D2), using the single-pad method for hand soldering.
- Solder the resistors (Labeled R1 & R2) using the single-pad method for hand soldering.
- Solder the 4x 2-Position headers.



SAINTCON MUNIBADGE CHECKING LOGS BADGE Designed by: RuShan & hollyhacker

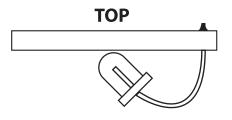
To get this Minibadge, HollyHacker is interested in trading, but is also interested in networking.



DIFFICULTY: RARITY: INTERMEDIATE SUPER RARE

ASSEMBLY INSTRUCTIONS:

- Begin on the Back side first.
- Solder the Resistor first, using the single-pad soldering method.
- Attach the LED from the BOTTOM. It will need enough length to be bent to point the LED upward to backlight the board. LONG-LEG goes through the Circle hole.



• Solder the 4x 2-Position headers.