

# THE SINCON DRAGON BADGE

## Soldering Tutorial



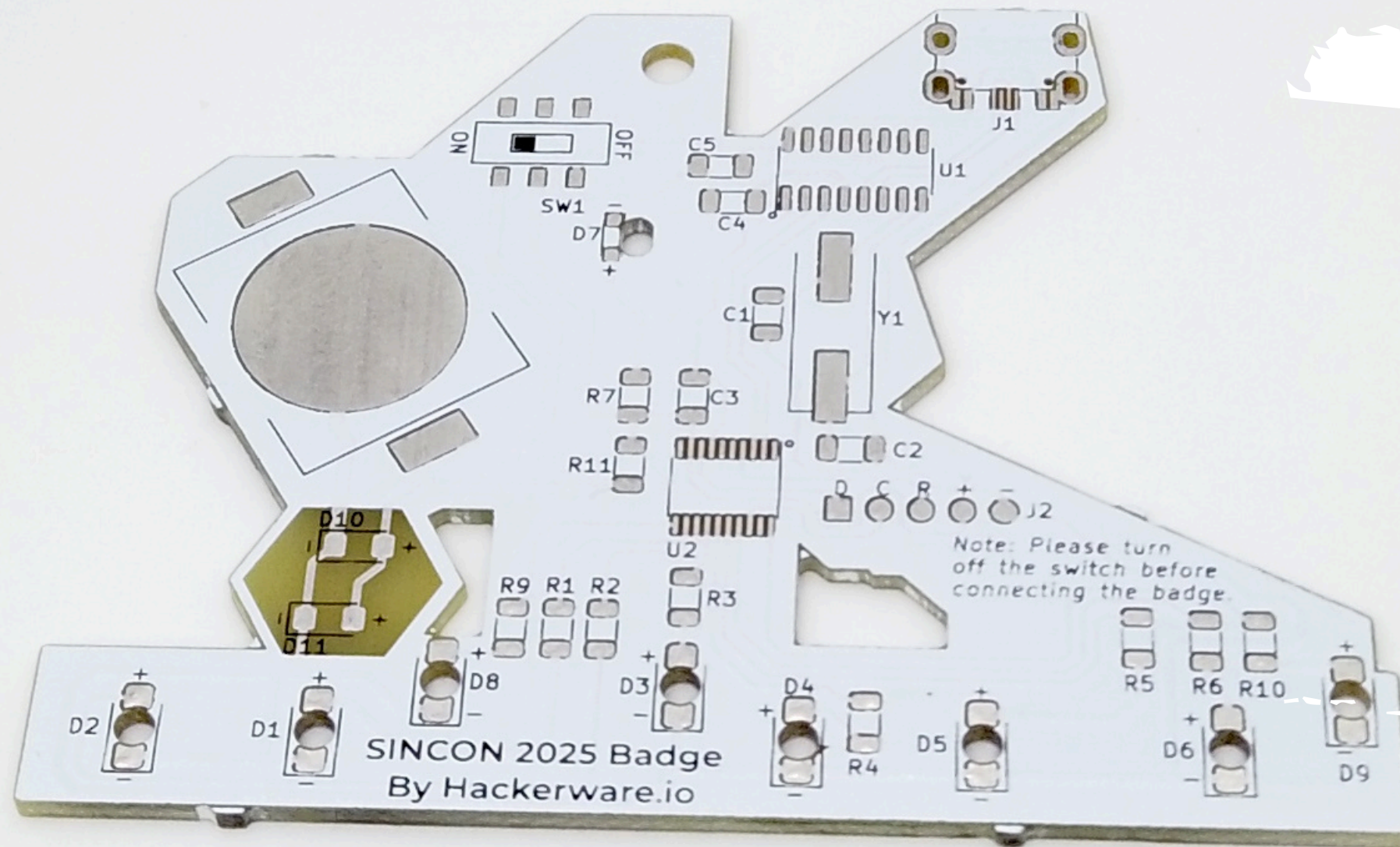
# TAKE A GLANCE

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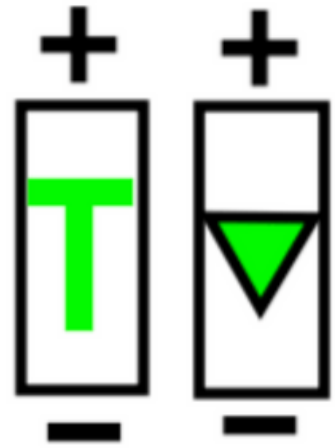
The badge comes pre-soldered with most of the components like the microcontroller, capacitors, switch etc.

The only component you need to solder is 1206 Surface Mount SMD LEDs.

In 3 simple steps, anyone can solder these minuscule LEDs easily.





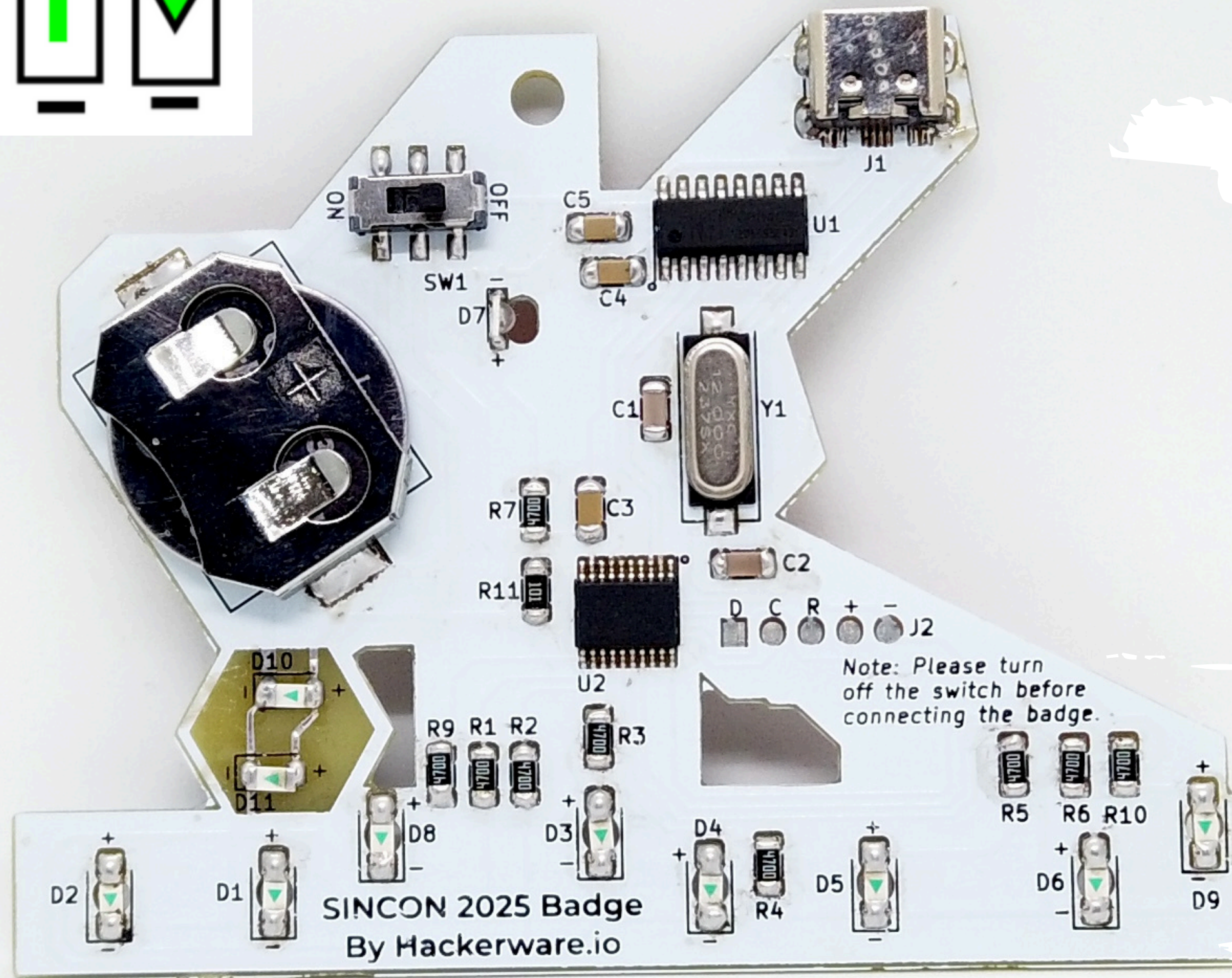


# LED POSITIONS

All LEDs are to be soldered upside down in their designated spots.

Pay attention to the polarity - the positive and negative terminals of the LED being placed in the correct direction on the pad.

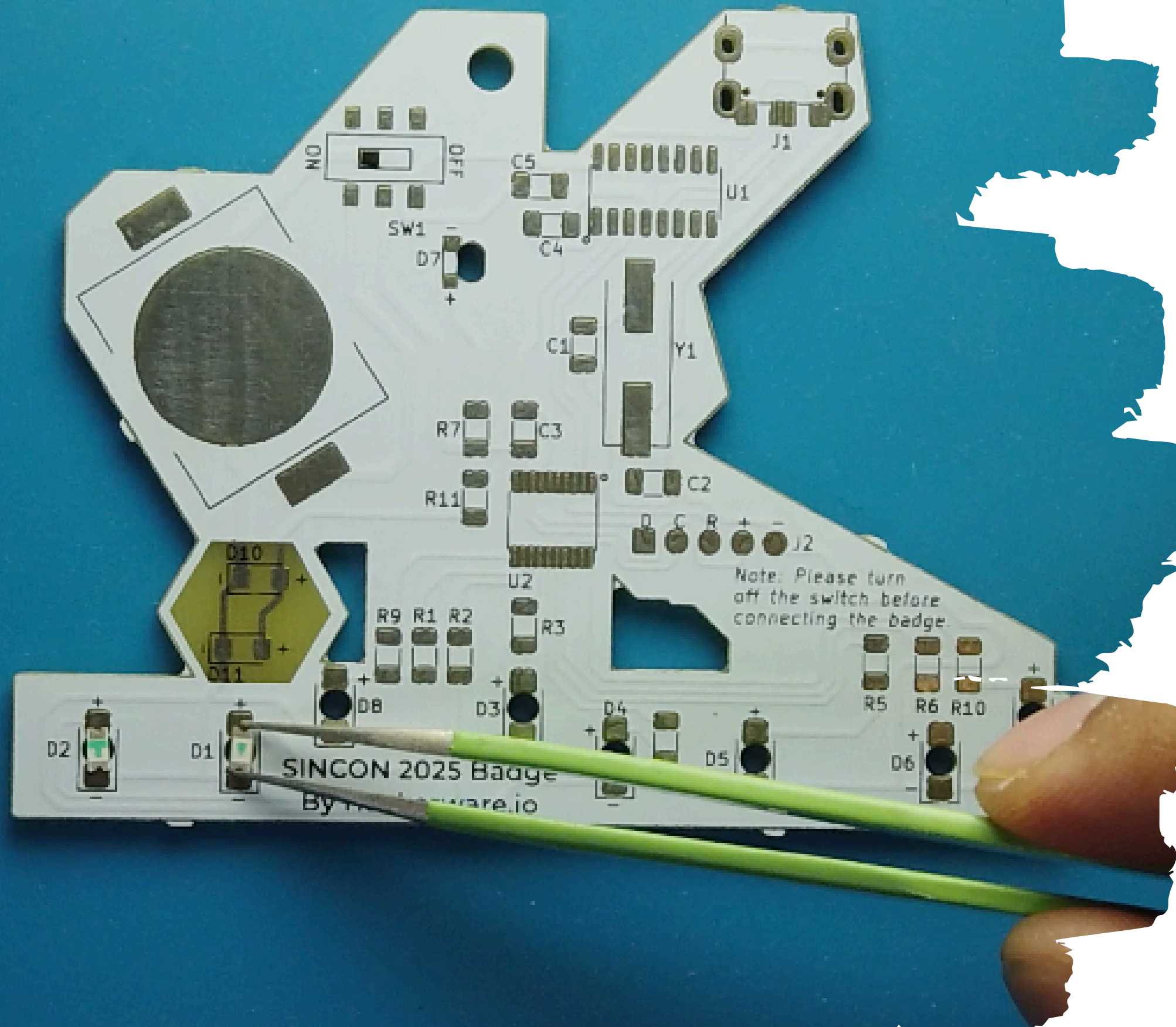
Point the green arrow on the LEDs towards the negative sign as denoted on the PCB. All LEDs to be soldered are pointing downwards.



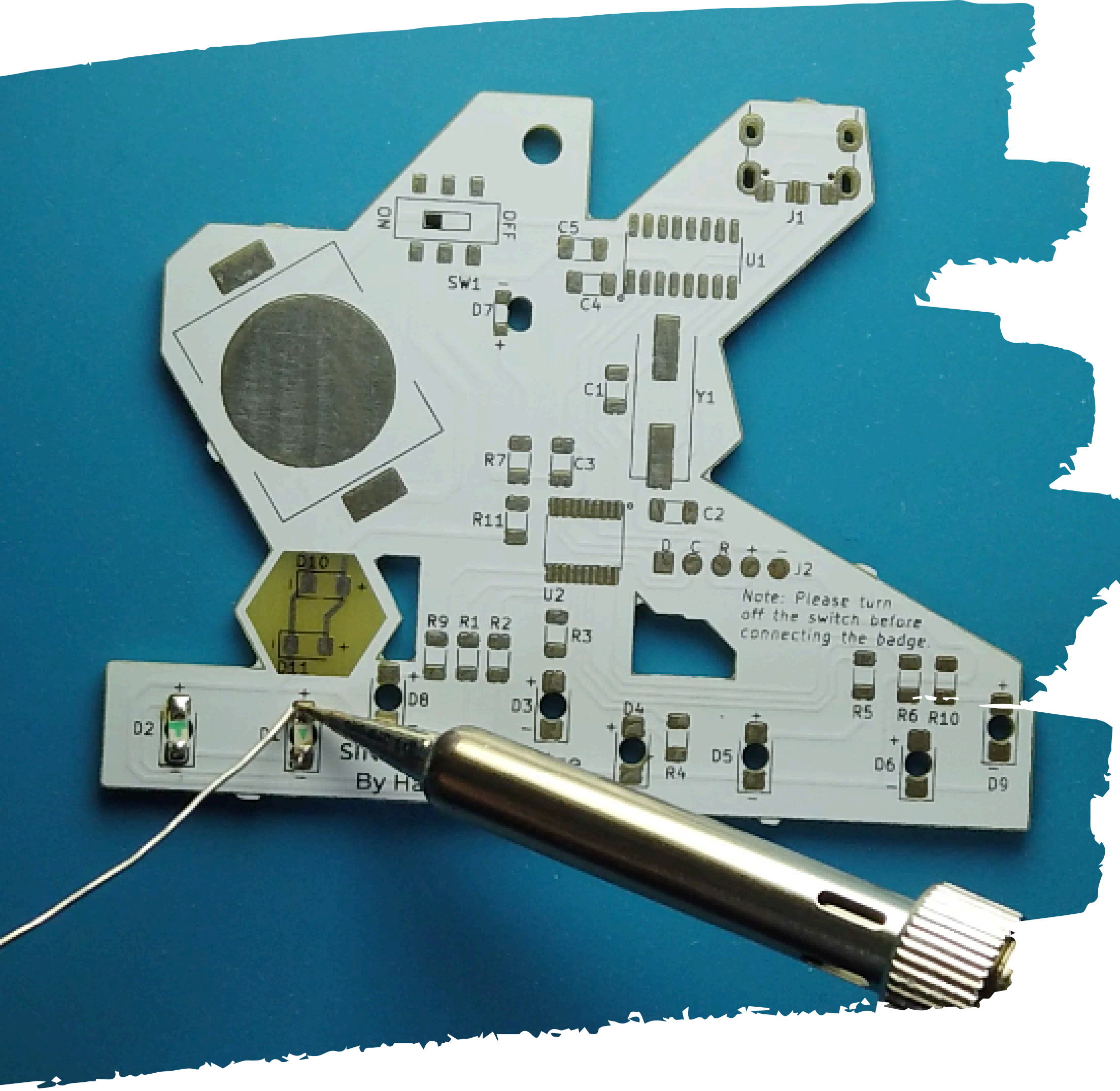
# PLACE THE LEDS

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After identifying the correct polarity and orientation, place the LEDs in the drilled hole.







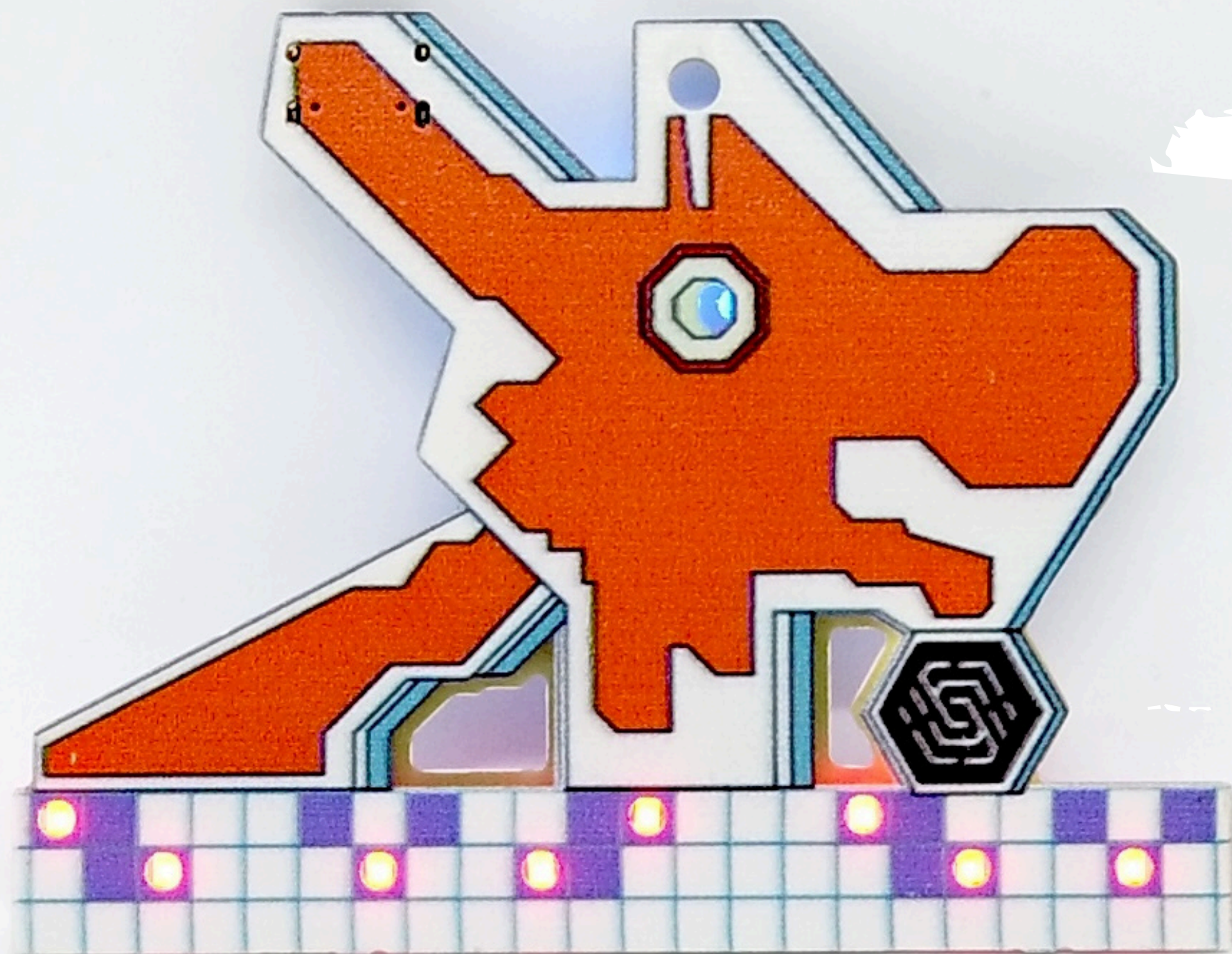
# SOLDER THE LEDS

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Hold the tip of the soldering iron on one side of the pad and gently apply the soldering wire.

Once the melted solder gets firm, let go of the LED, and it's done.

Then repeat the same for the other pad and all the LEDs.



# IT IS READY!

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Insert the coin cell to turn on the switch to see a sneak preview for 3 seconds.

Do not forget to turn off the badge before connecting via a micro-USB cable.

Play and solve CTF challenges to unlock and glow all the LEDs.

Happy Hacking!