Rules for Physical Device Challenge
SECCON 2023 Finals

You can read this sheet starting 1 hour before the start of your challenge. Do not show this sheet to other teams. The judge will collect this sheet once your challenge ends.

[Story] You can skip it :)

Police authorities have apprehended a suspect believed to be involved in bombing activities. During a search of the suspect's residence, they uncovered plans for a terrorist attack in Tokyo. The bomb has been located in the waiting room of Hulic Hall, Asakusabashi. As members of the bomb disposal squad, your task is to neutralize this threat. Included in your briefing materials is the circuit diagram and the source code of the bomb, which were retrieved from the suspect's home.

You have one hour to analyze this information while en route and a critical 10-minute window on-site to defuse the bomb.

[Goal]

You must successfully defuse the bomb to obtain the flag.

The judge will check the following criteria: (AND condition)

- The bomb should not emit a signal of explosion (red LED) after the time limit.
- The bomb should emit a signal of disarmament (blue LED) after the time limit.
- None of the circuit elements (such as transistor or ICs) should be damaged.
- Only the traces within the "Challenger Side" as indicated on the circuit diagram should be cut.

Refer to the appendix document for the picture of the bomb circuit.

[Equipments]

We provide you with the following device and tools:

- HAKKO 600-01 solder aid tools (For cutting PCB traces)
  - Needle, hook, remover, fork, brush, and scraper
- 3.5x pocket magnifier loupe with LED light

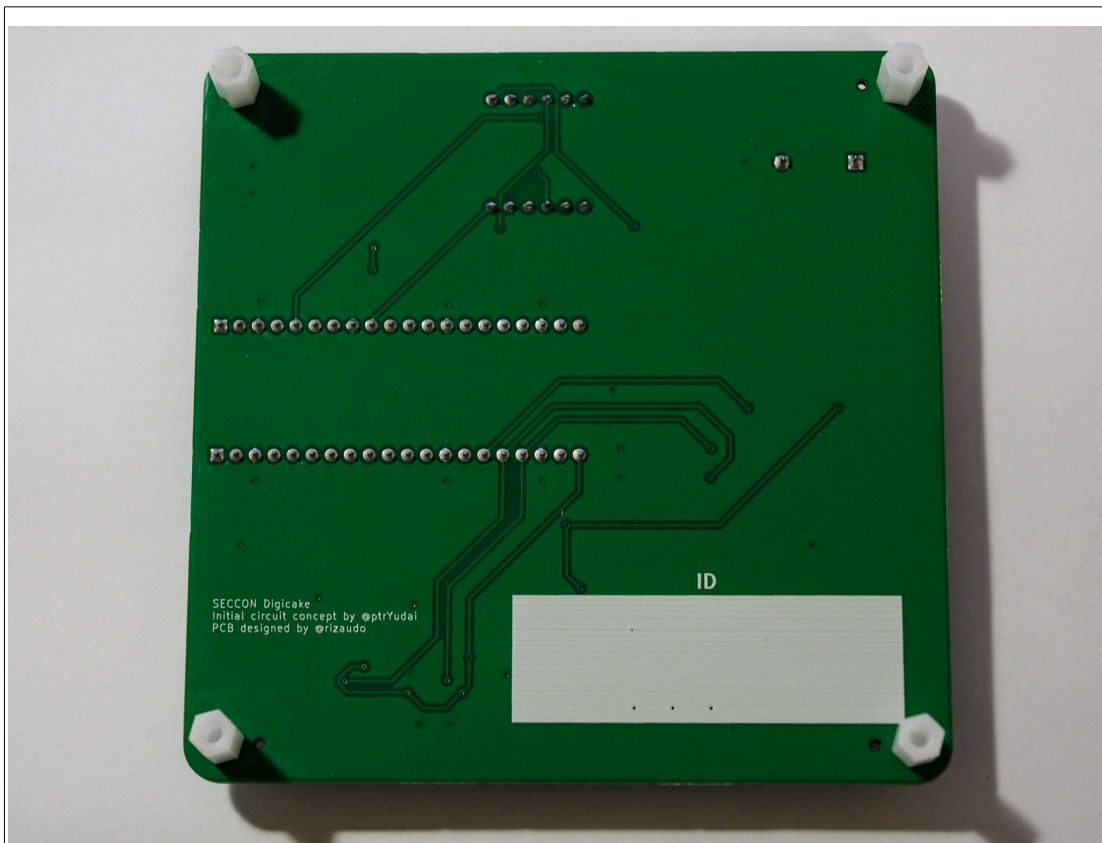You cannot bring your own tools except for your computers.

[Rules]

- **You may only cut (shave) traces** on the front side of the circuit.
- **Do not cut any traces outside the area marked as "Challenger Editable Zone".**
- Do not damage components such as LEDs or ICs.
- One or more players are allowed to enter the challenge room at the start of your challenge. You can choose to abandon the challenge without any trials.
- Players may leave the room during the challenge, but **re-entry is not permitted** once the challenge has started.

Appendix
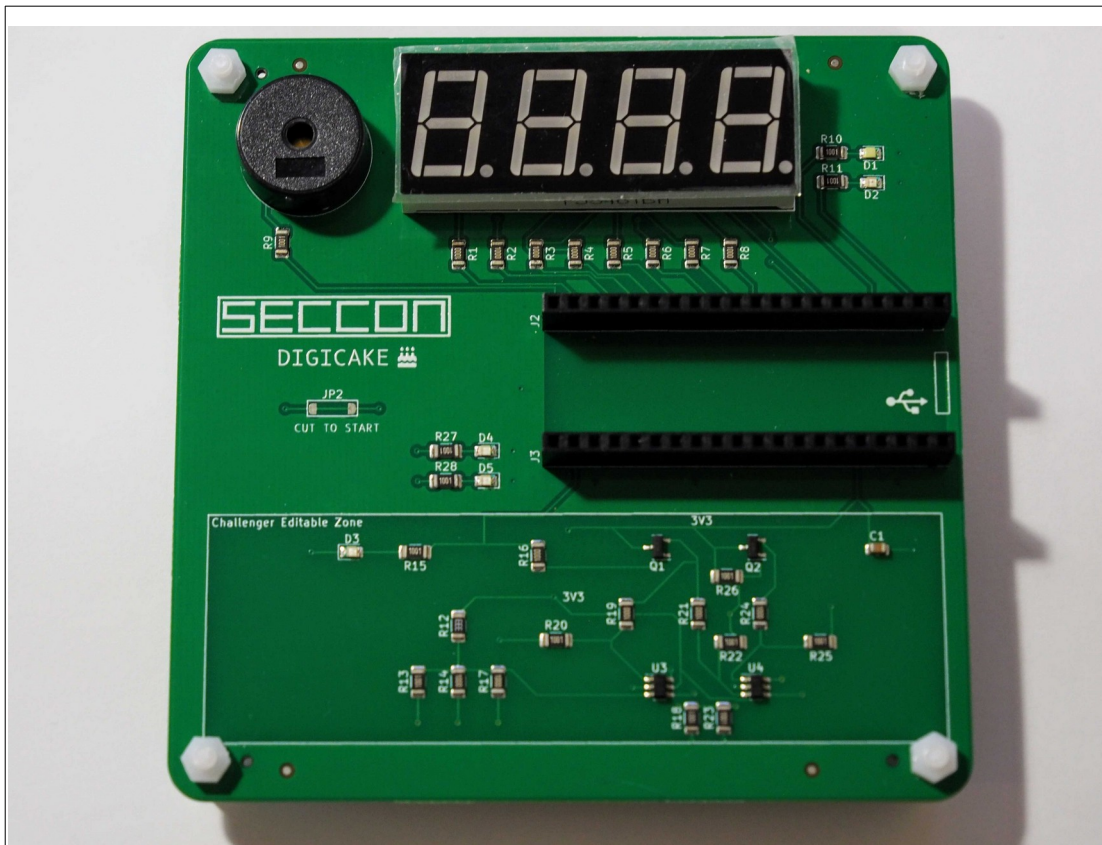
(a) Front side of the circuit

(b) Back side of the circuit