

SmartKnob: User interfaces' new sense of touch

以直流無刷馬達實現可程式控制觸感與線位
之人機交互界面

Outline

動機與目的

系統架構

製作流程

檢討與展望

Outline

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製作流程

檢討與展望

如何用一個開關控制多個裝置？

(控制器成品圖)



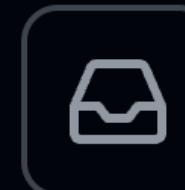
Lexus RX 450h Remote Touch

Issued 04/2009

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scottbez1 / smartknob



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Issues 62

Pull requests 7

Actions

Projects

Wiki

Security

...



smartknob

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Star 21.1k

master ▾



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<> Code ▾

About



scottbez1 Update README.md



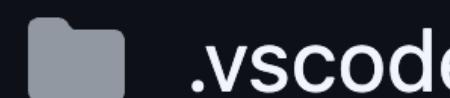
4eb9883 · last year



.github

Fine tuning for esp32s3 ...

2 years ago



.vscode

Web Serial library and d...

2 years ago



cad

Add link to 15mm adapter

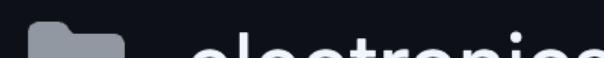
3 years ago



doc/img

Update readme

3 years ago



BOM - Replace dissent

3 years ago

Haptic input knob with software-defined endstops and virtual detents

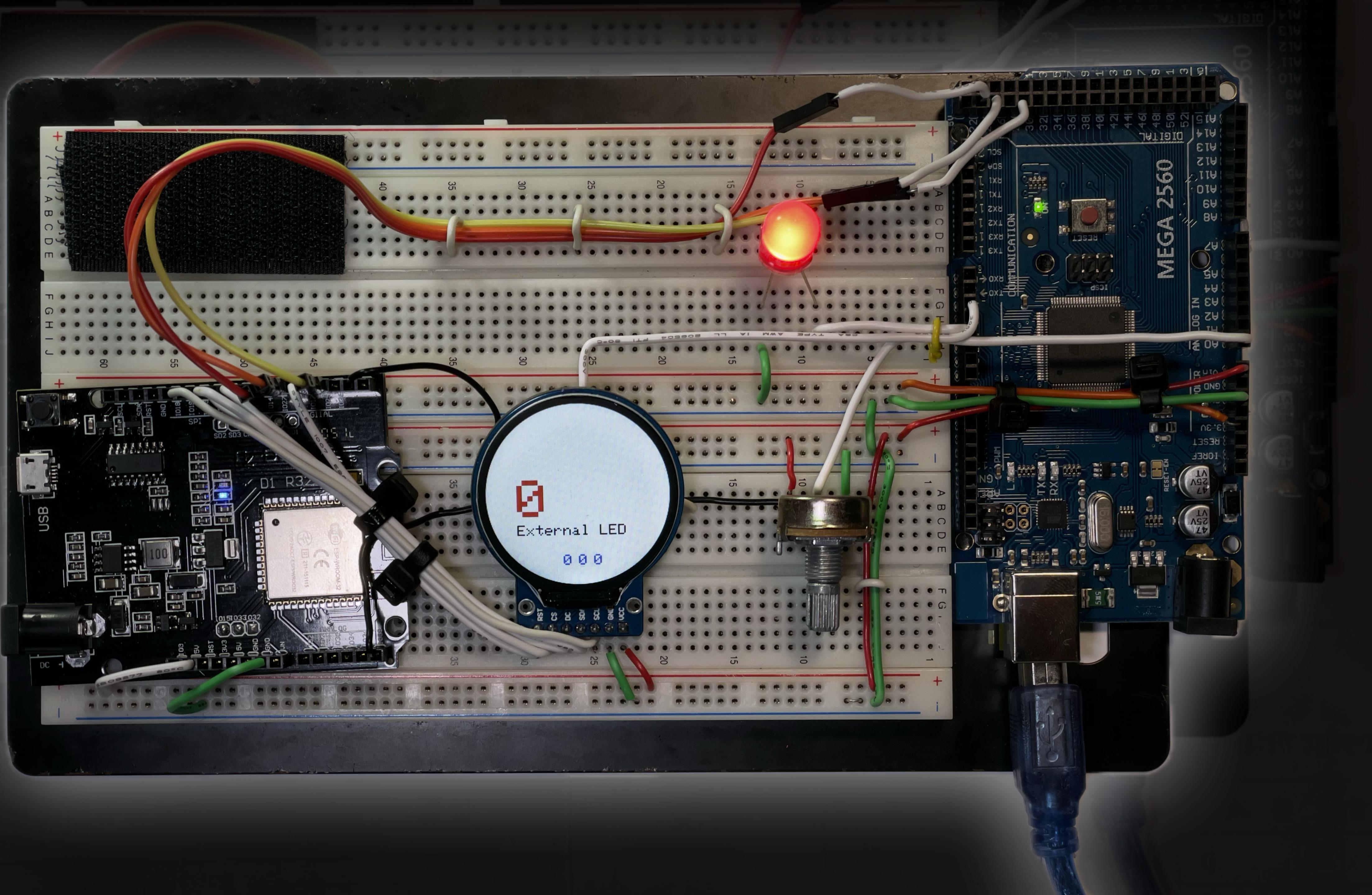
🔗 www.youtube.com/watch?v=i...

📖 Readme

⚖️ View license

⚡ Activity

⭐ 21.1k stars



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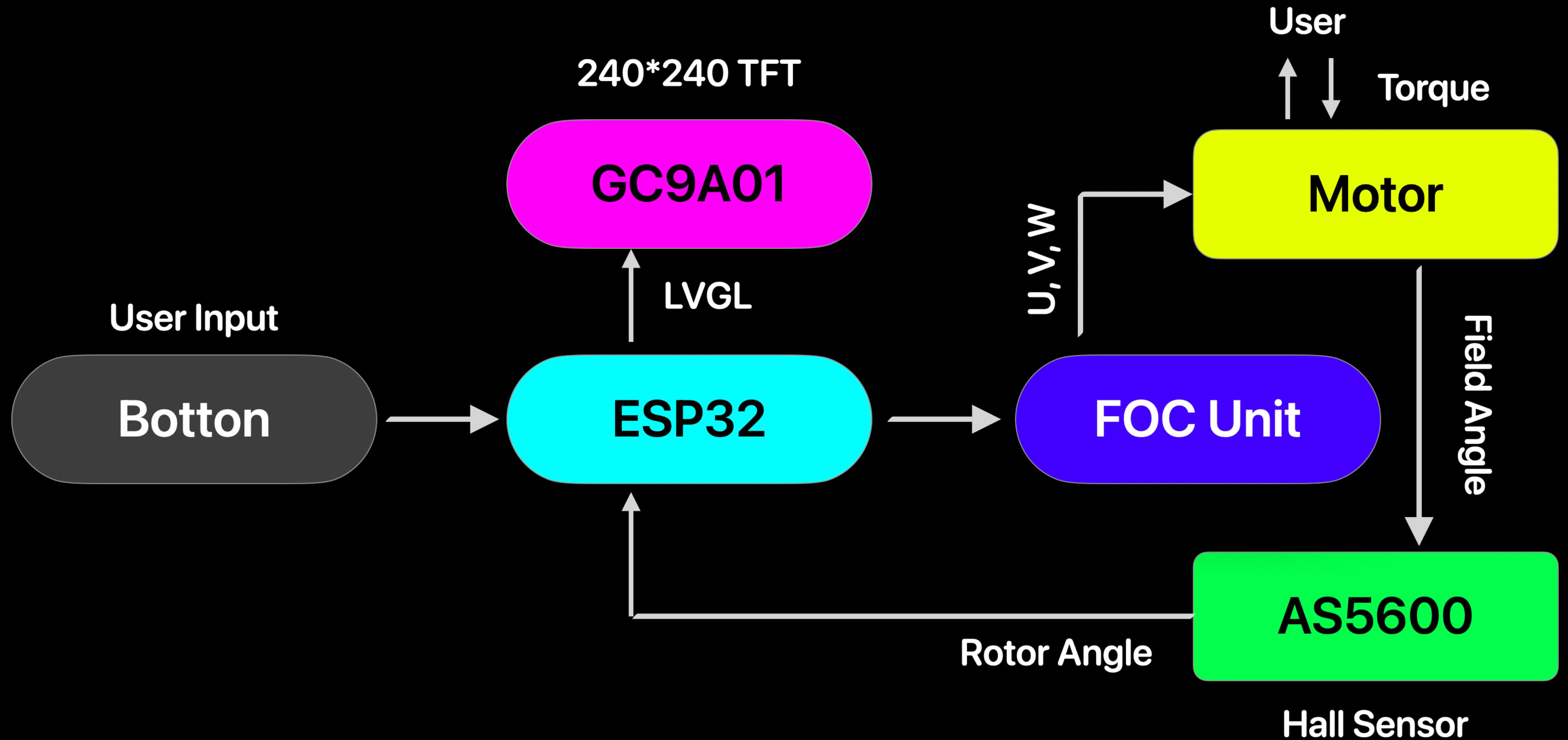
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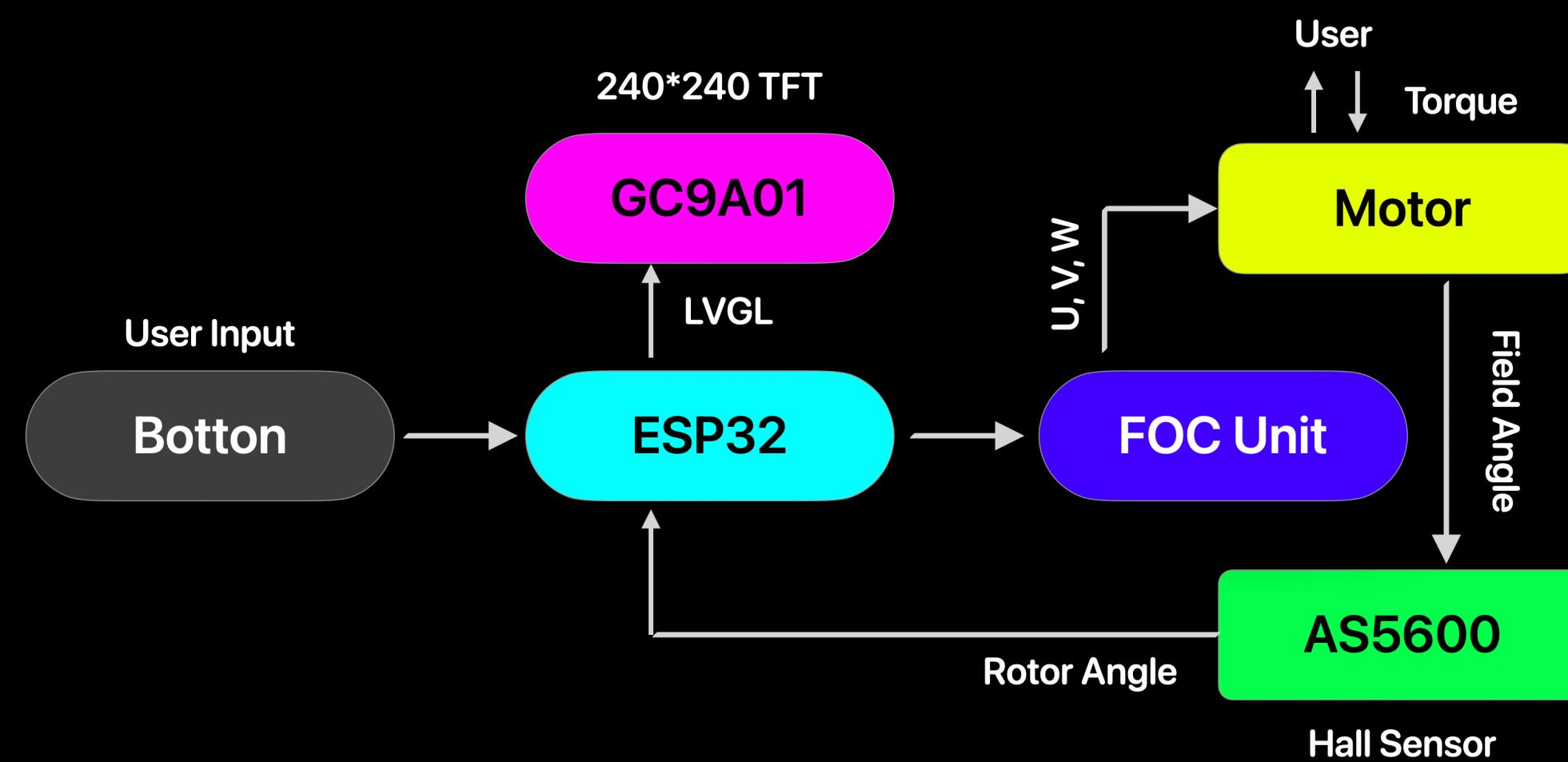


應用

Application

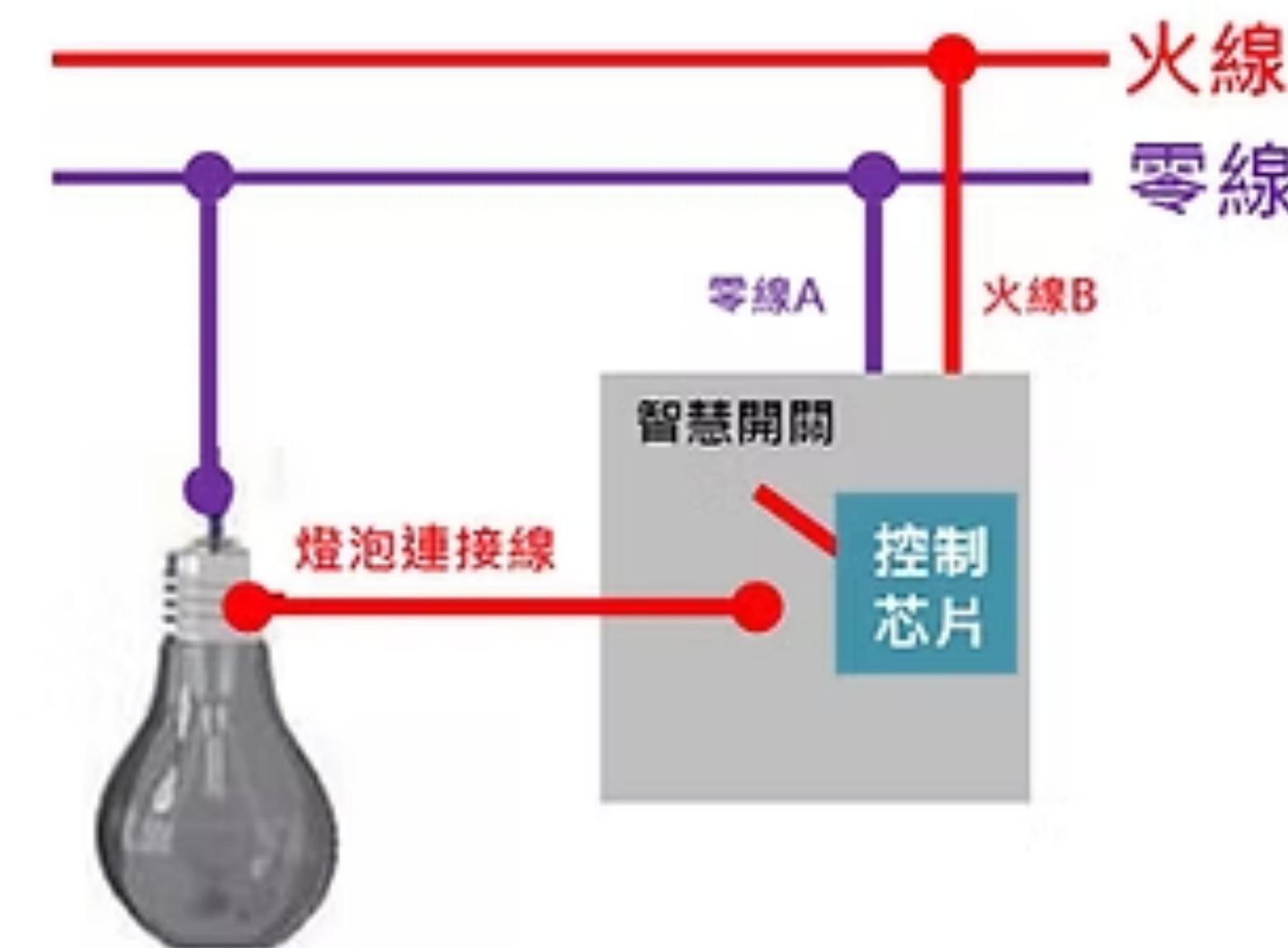
技術

Technique





傳統開關



零火開關



Light



This may take a few minutes.



Setting Up...

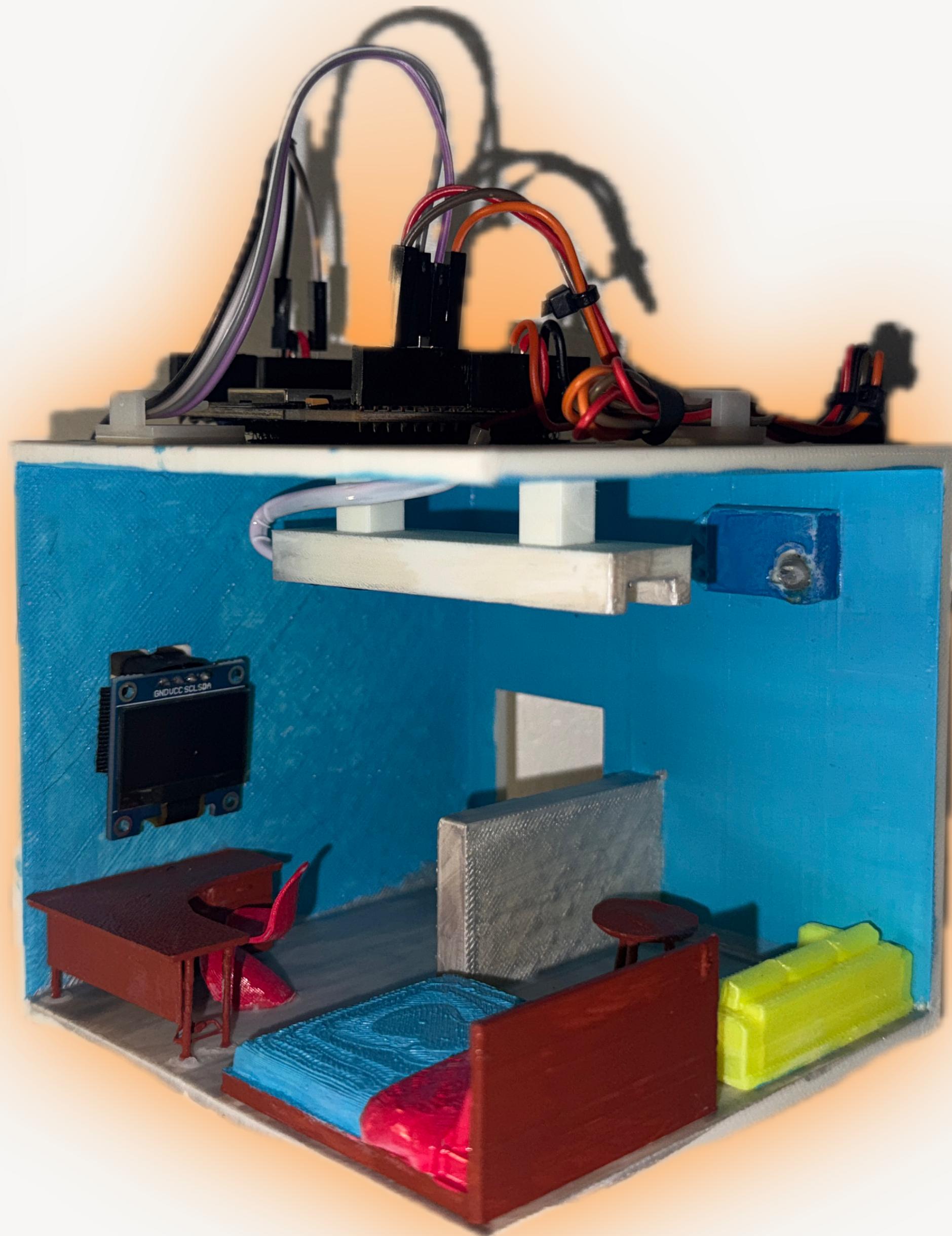






窗簾

插座



燈光

空調



究廉

插座



燈光

空調



窗簾

插座
繼電器



燈光

空調



窗簾

插座



燈光

空調
RGB LED



窗簾

螢幕白色區域

插座



空調

燈光



窗簾

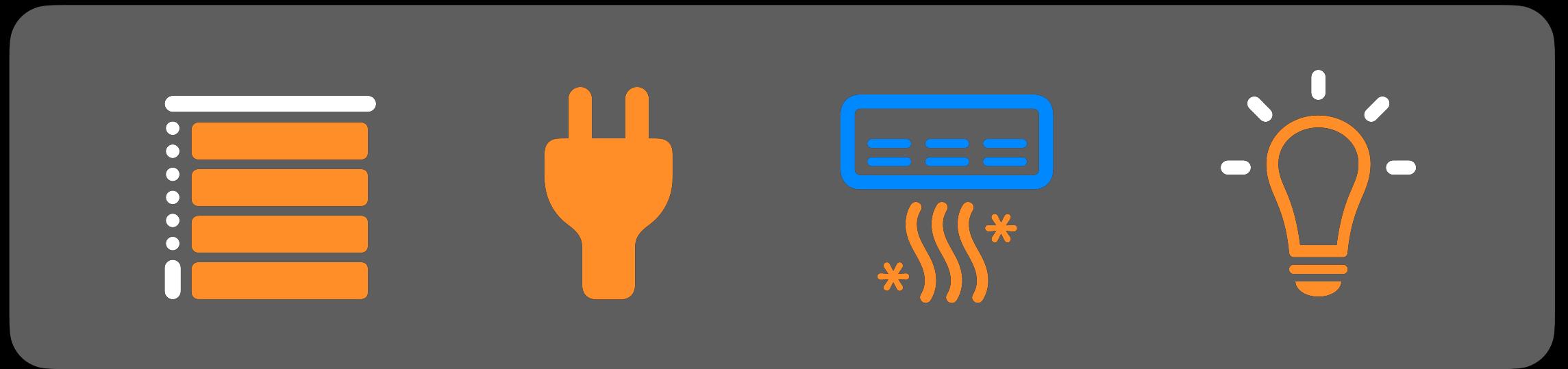
插座



燈光
LED 燈條 (PWM)

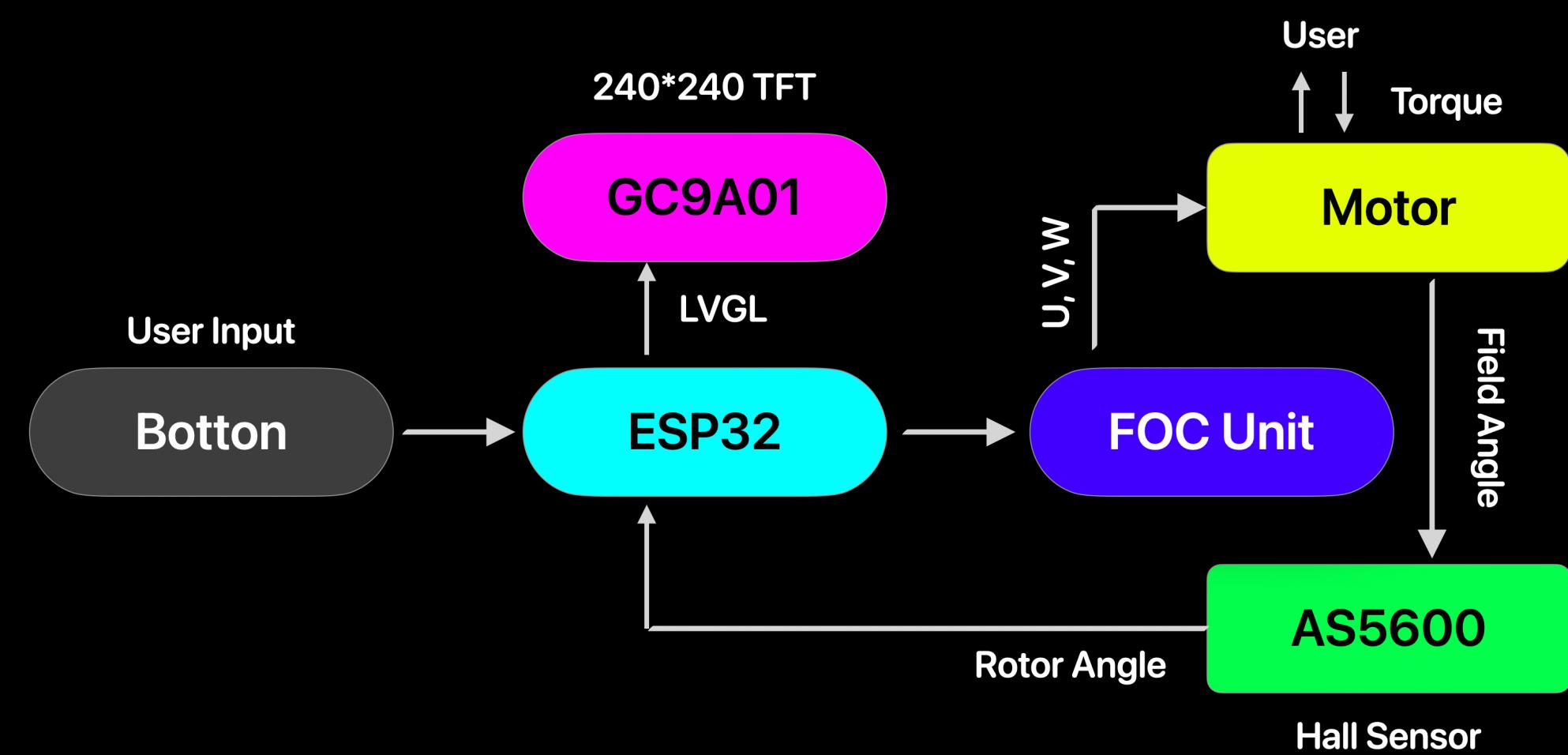
空調

應用



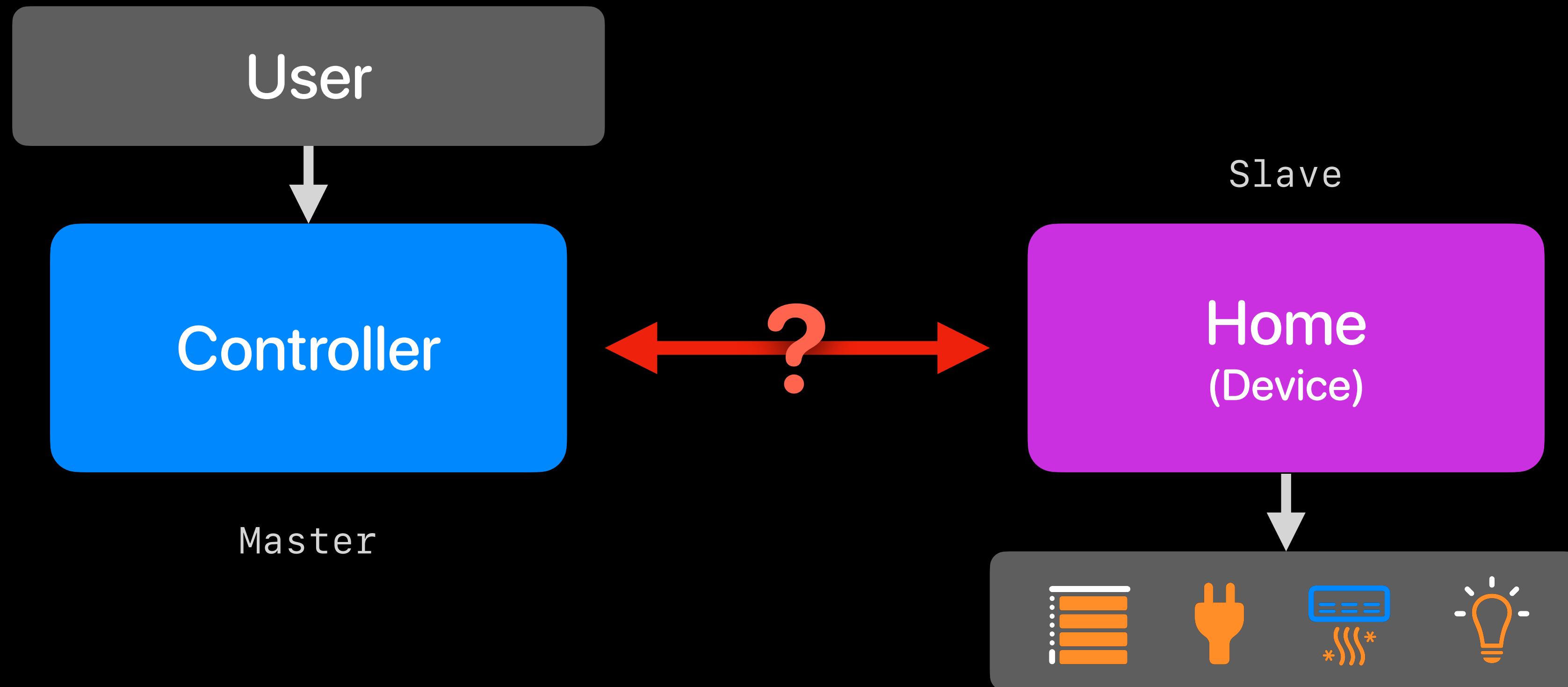
Application

技術



Technique





```
{ "id": , "dev": , "val": }
```



```
{ "id": , "dev": , "val": }
```

第幾次通訊



```
{ "id": , "dev": , "val": }
```

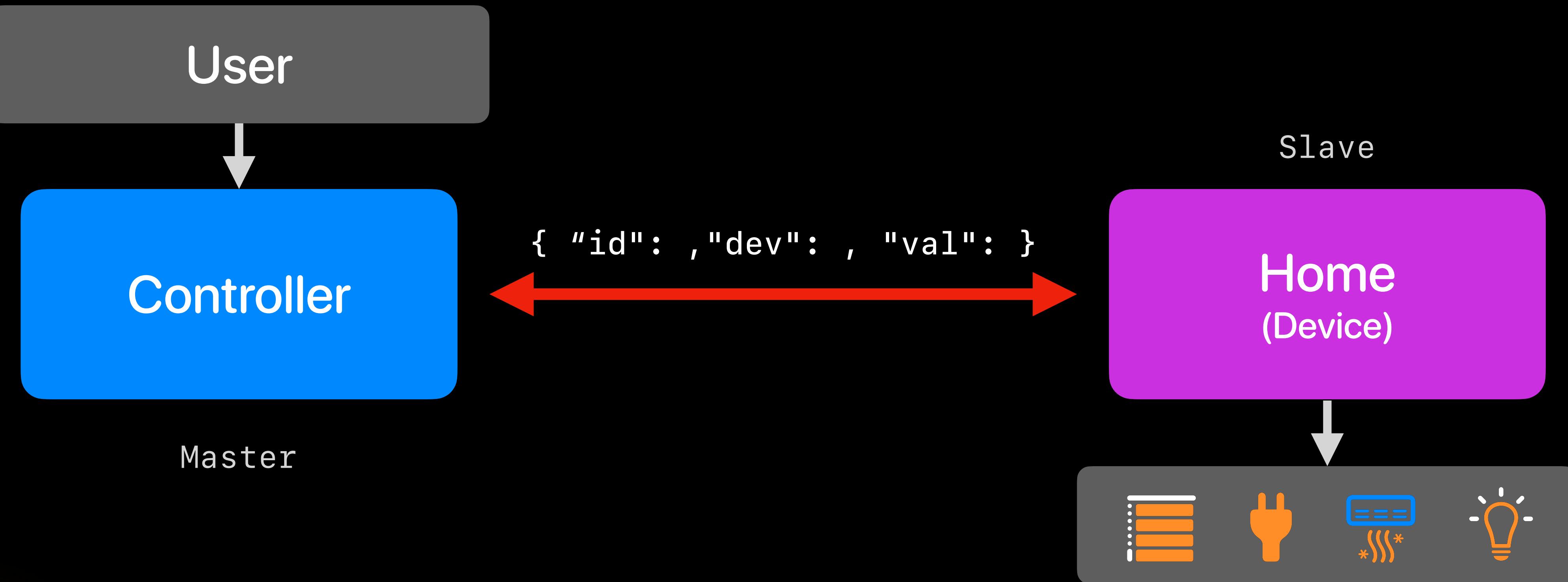
要控制的裝置



```
{ "id": , "dev": , "val": }
```

目標裝置狀態





{ "id": 10, "dev": "curtain", "val": 0 }
{ "id": 11, "dev": "light", "val": 50 }
{ "id": 12, "dev": "ac", "val": 26 }



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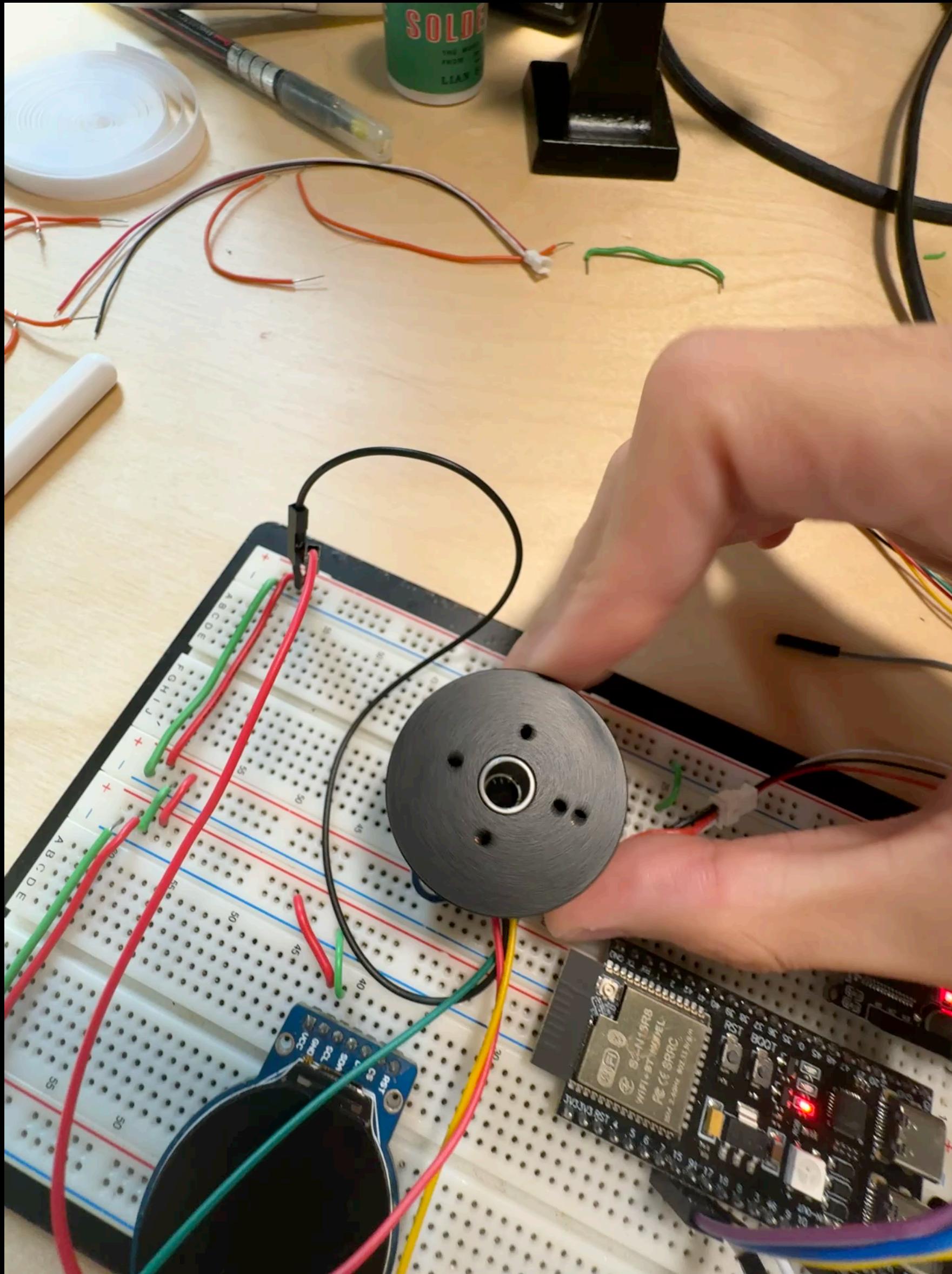
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SeedLabs-it / smartknob-firmware



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Security



smartknob-firmware

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Fork

13



Star

119



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About



carlhampuswall Spotify App. (...)



afd6632 · 2 months ago



.github/workflows

Updated to newer Ubun...

6 months ago

.vscode

Spotify App. (#165)

2 months ago

boards

[WIP] onboarding (#65)

last year

docs

Create ota.md (#104)

last year

firmware

Spotify App. (#165)

2 months ago

Repository for the Smart Knob Firmware (Currently supporting Dev Kit v0.1)

Readme

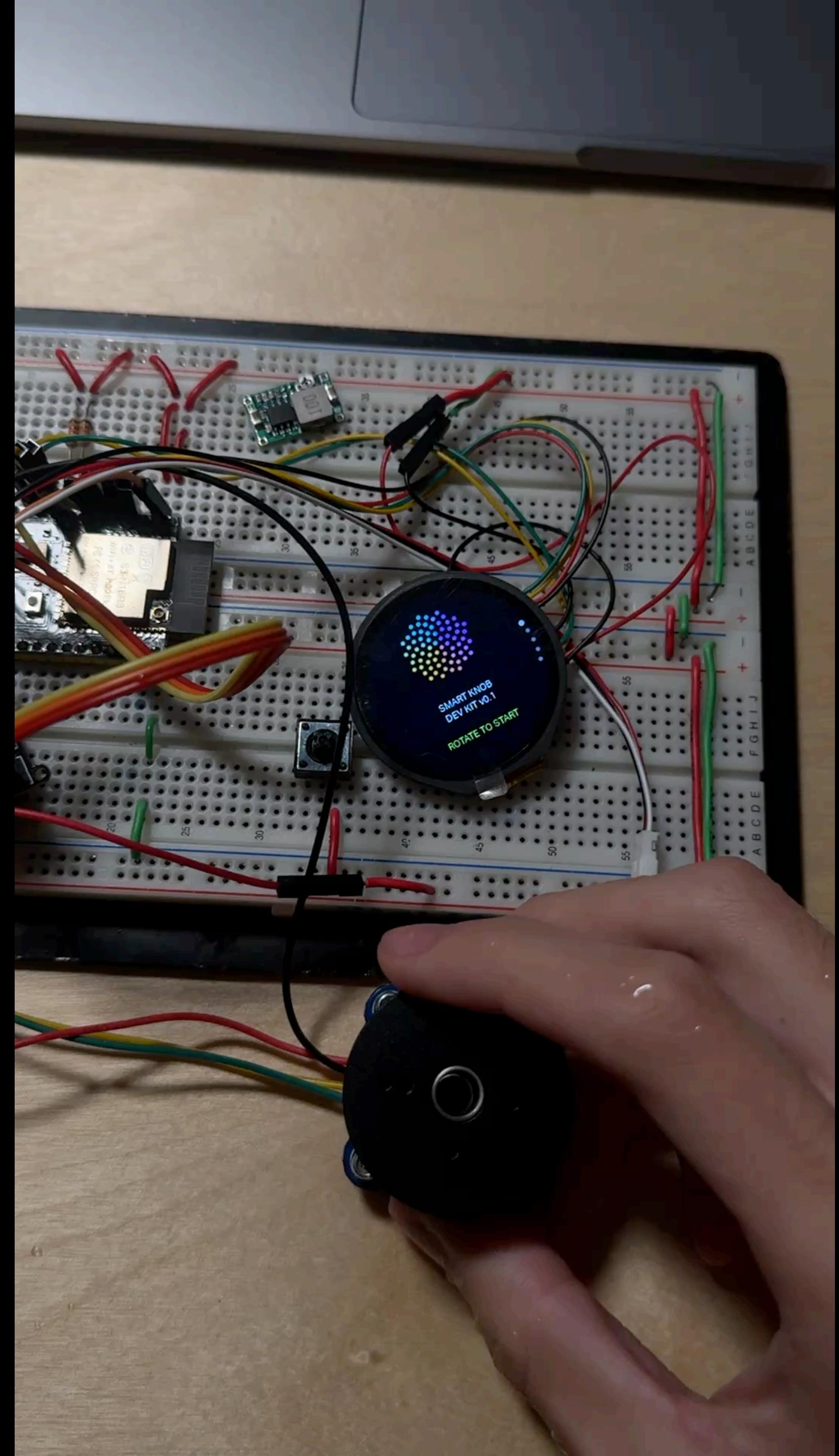
View license

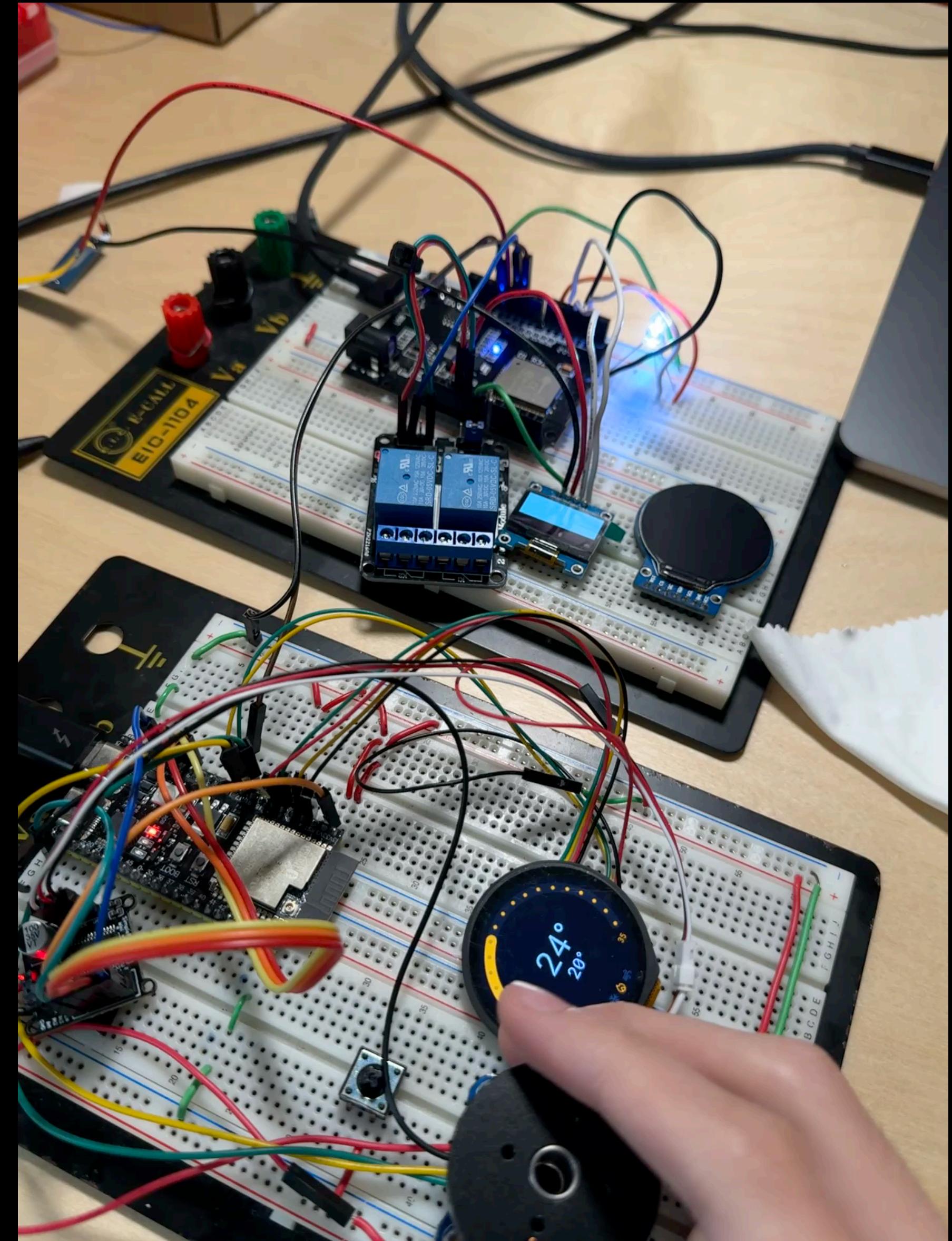
Contributing

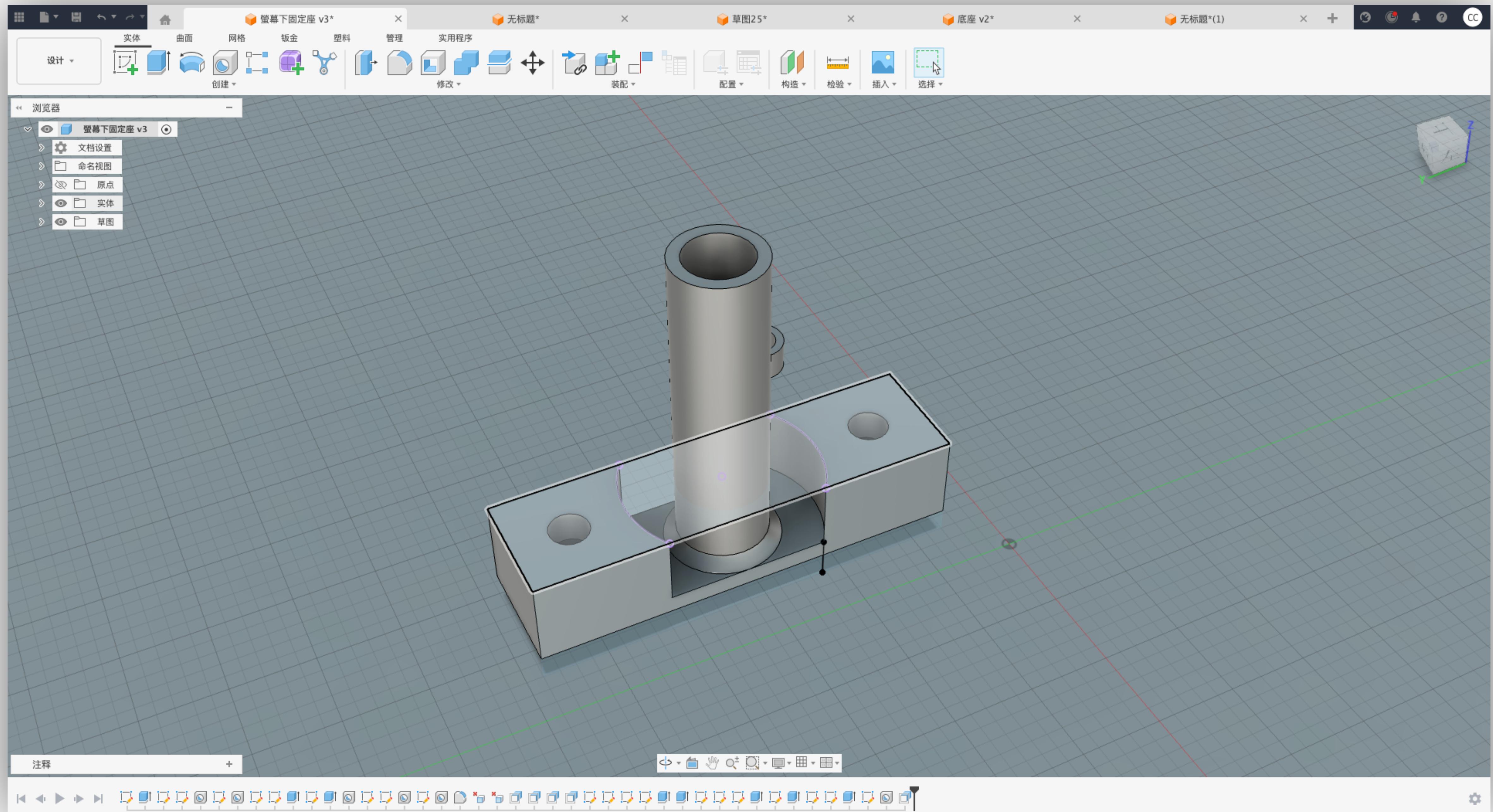
Activity

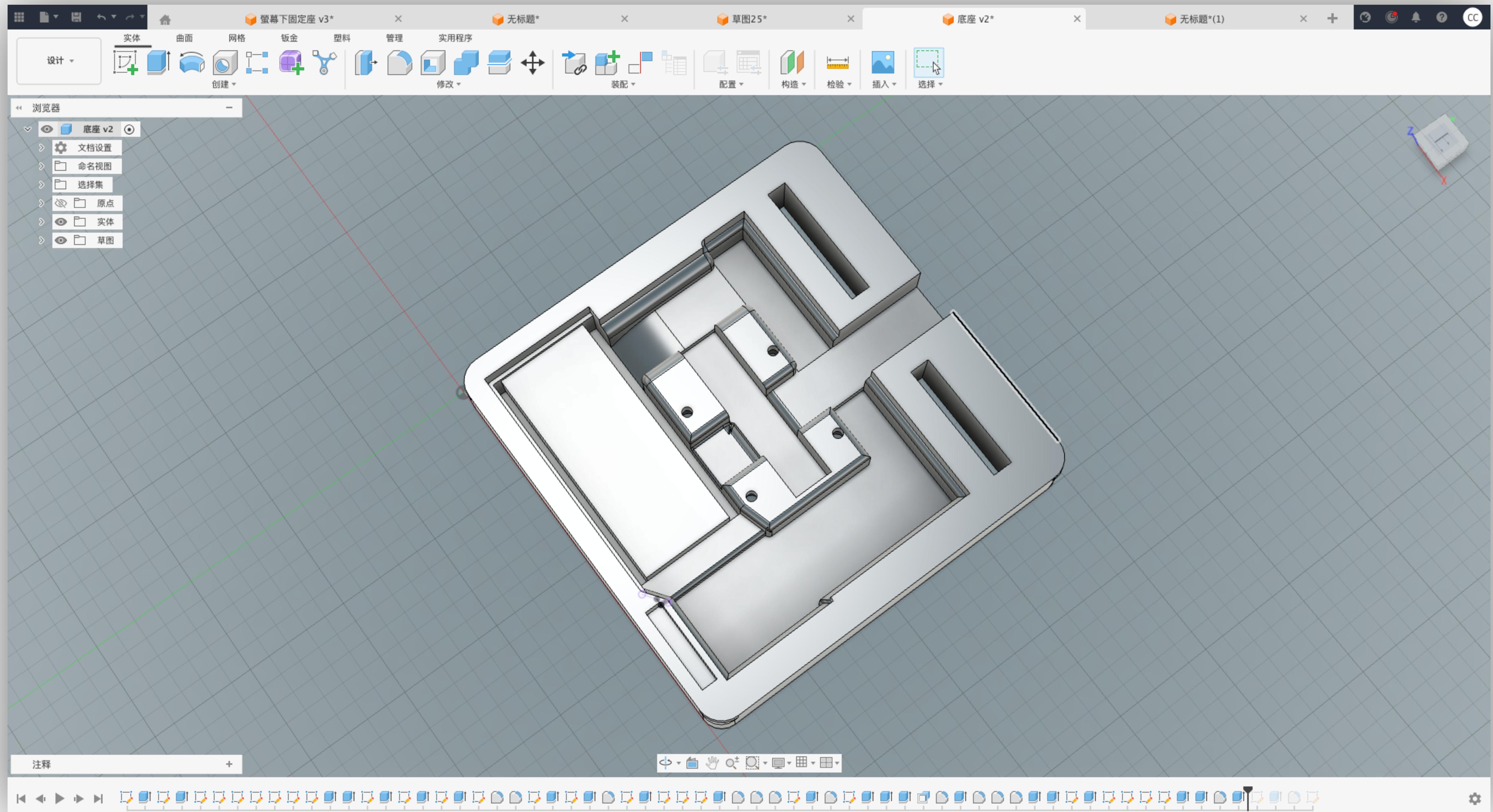
Custom properties

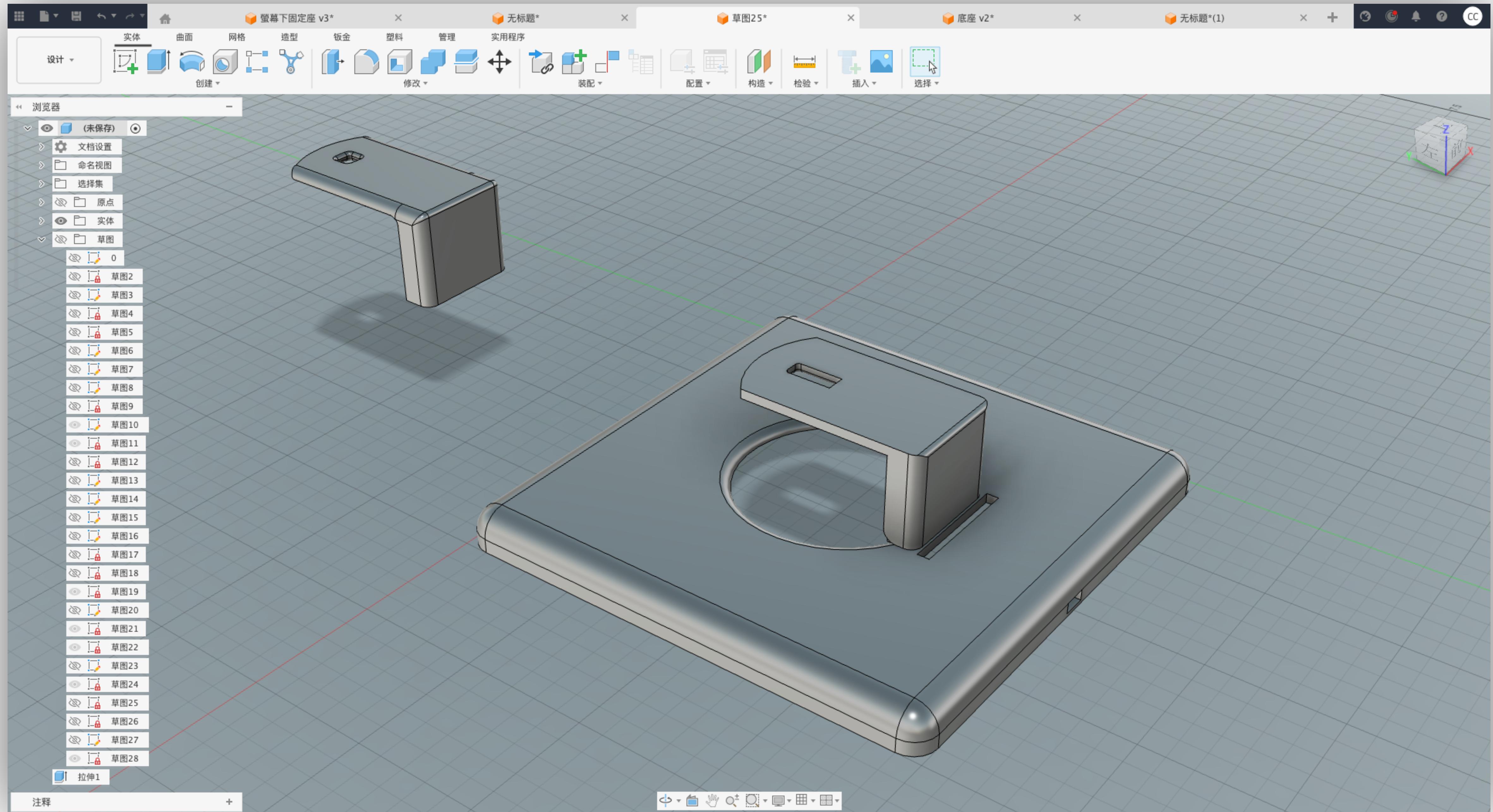
119 stars

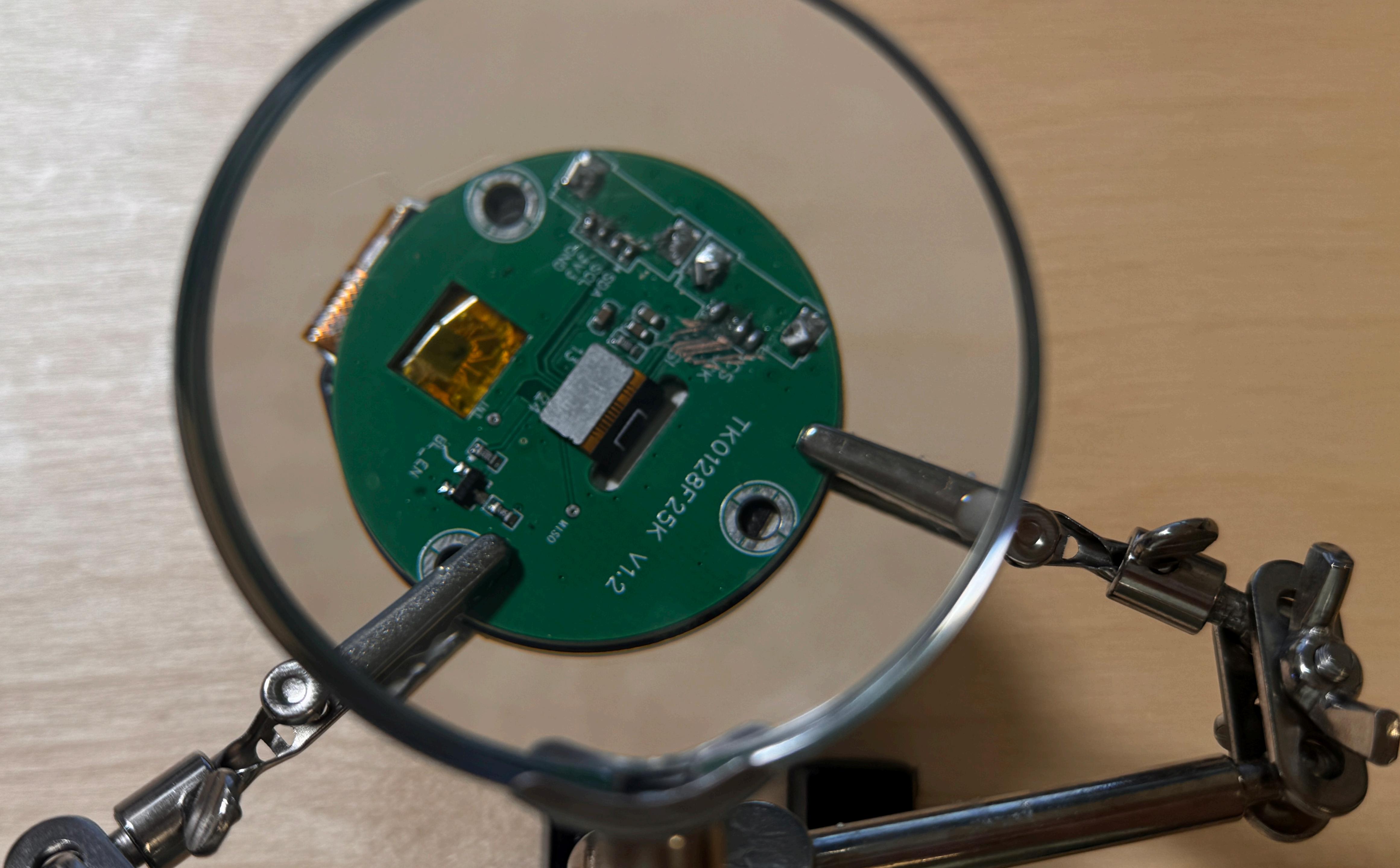


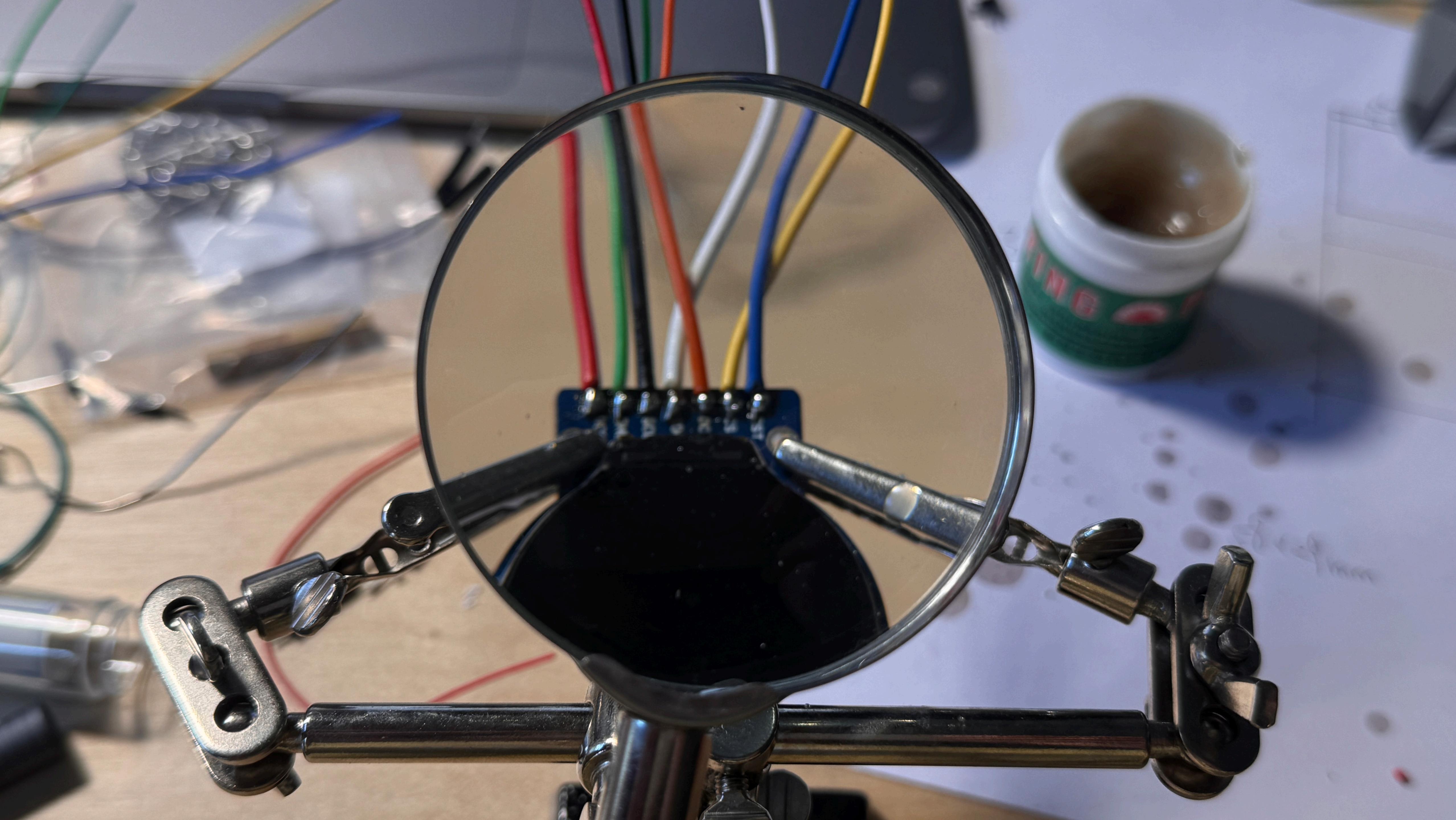


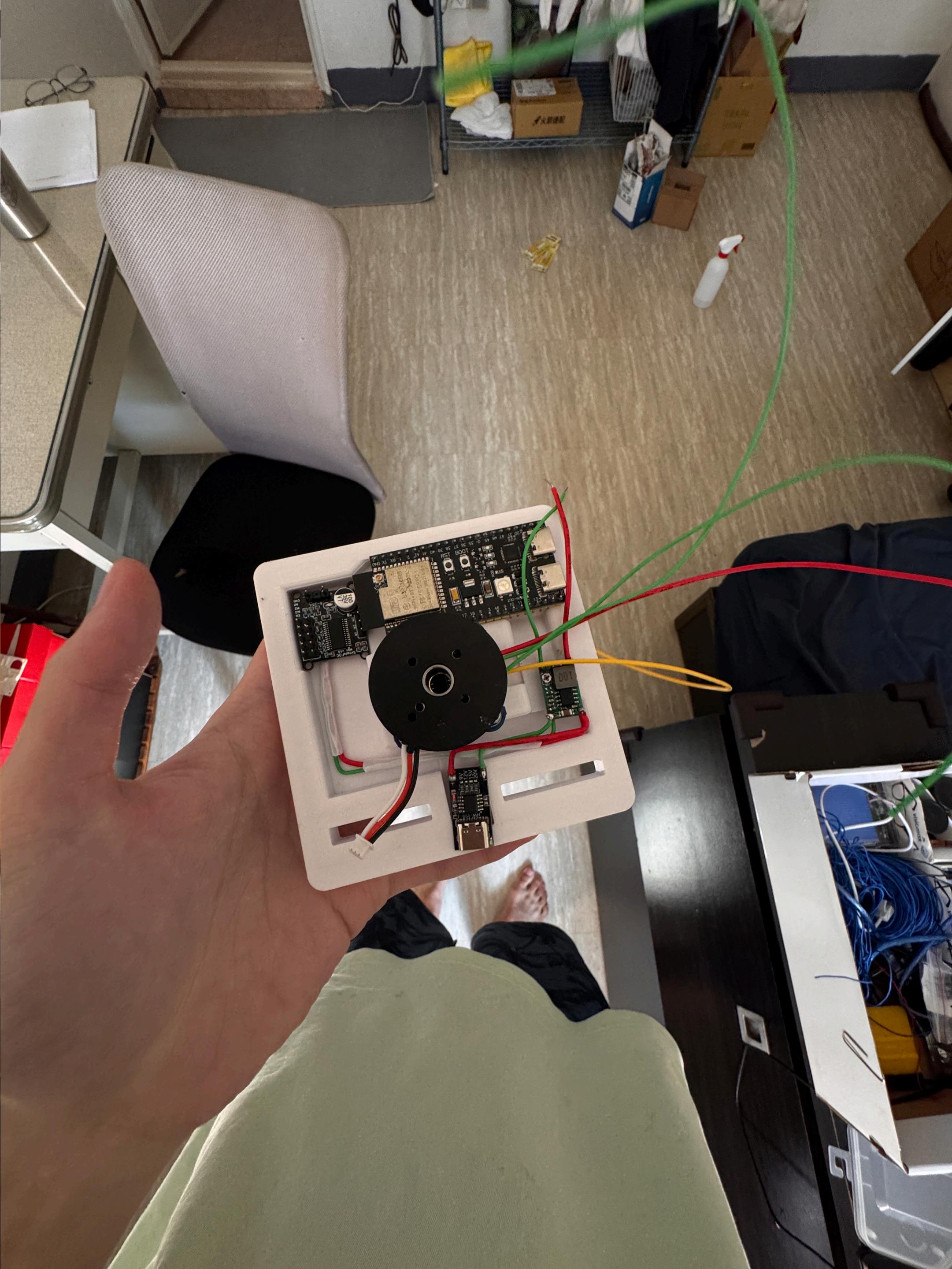


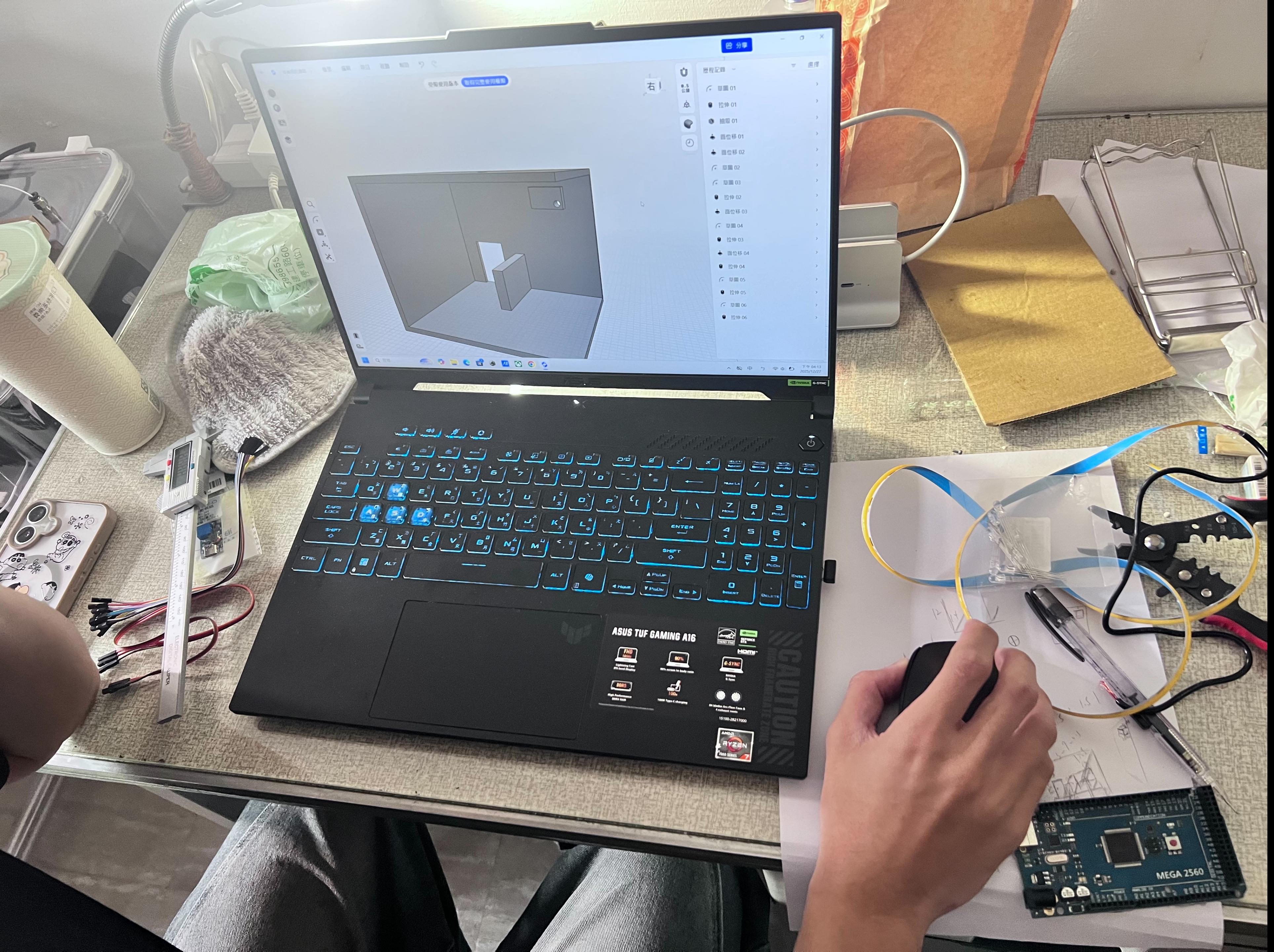














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Virtual Detents

Field-Oriented Control

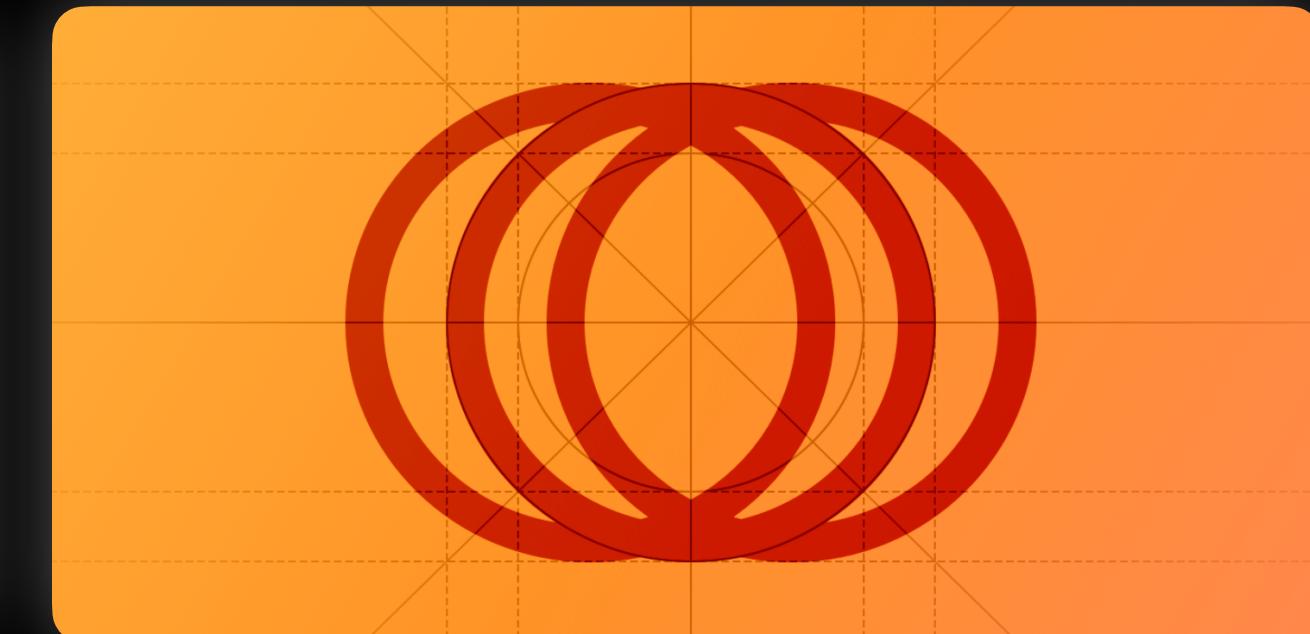
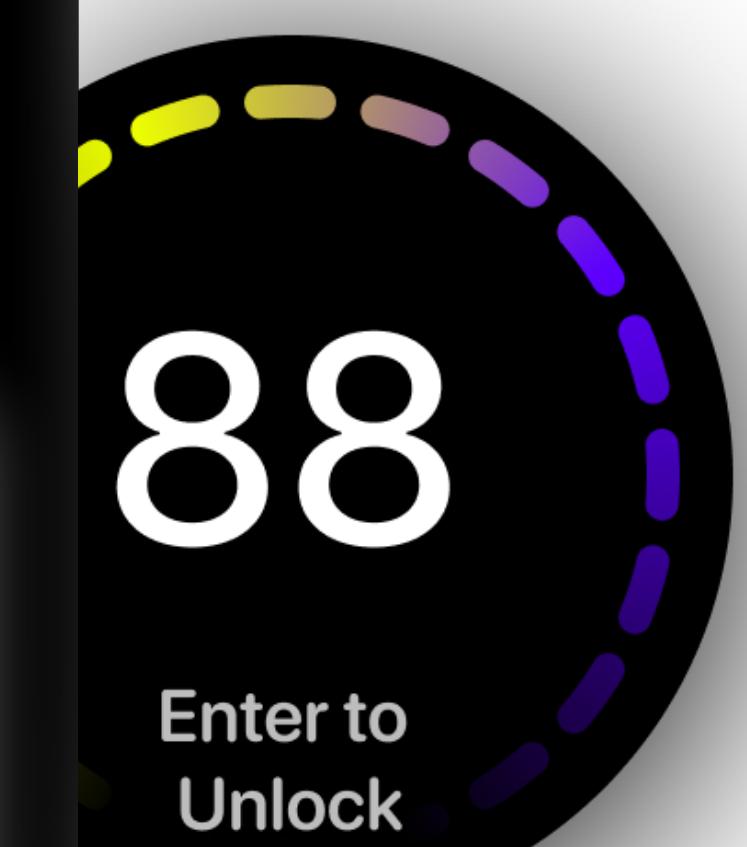
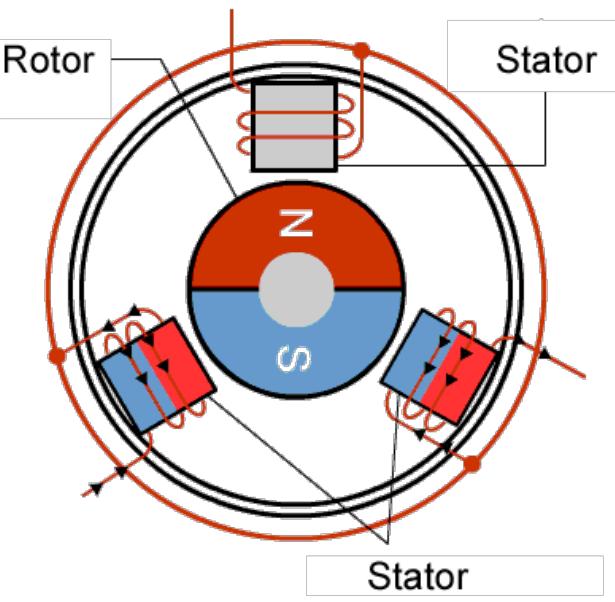
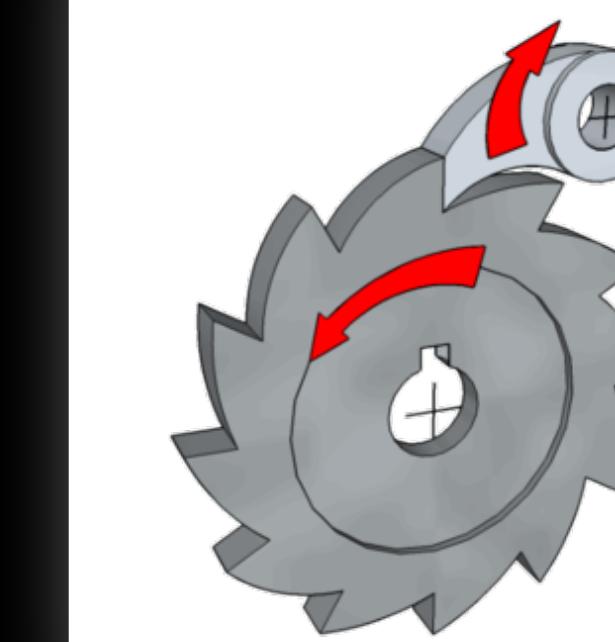
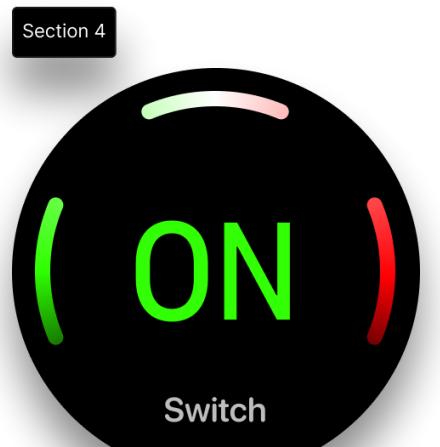
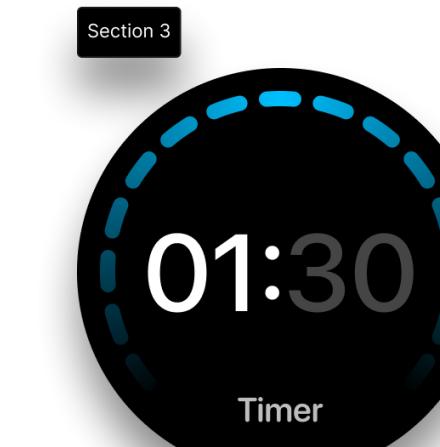
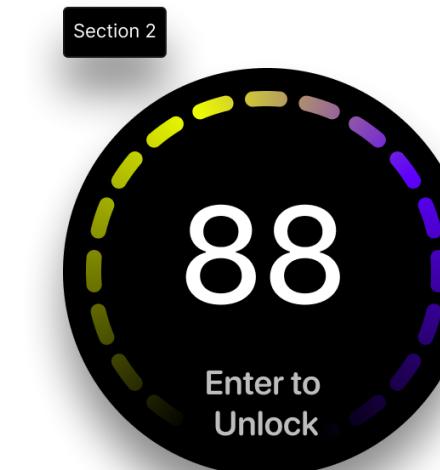
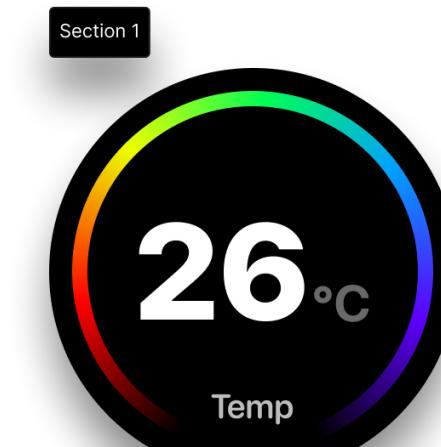
User Interface Design

LVGL



**USB-C
Powered**

Usability-driven



**GC9A01
Display**