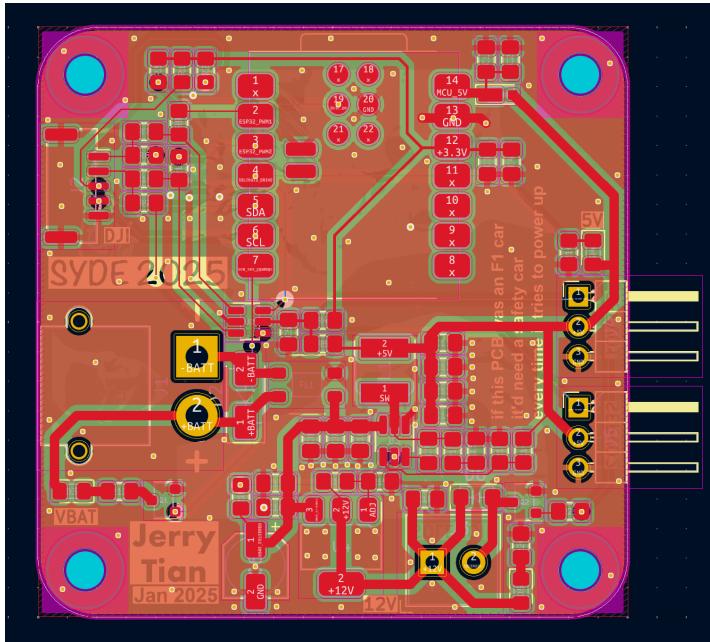
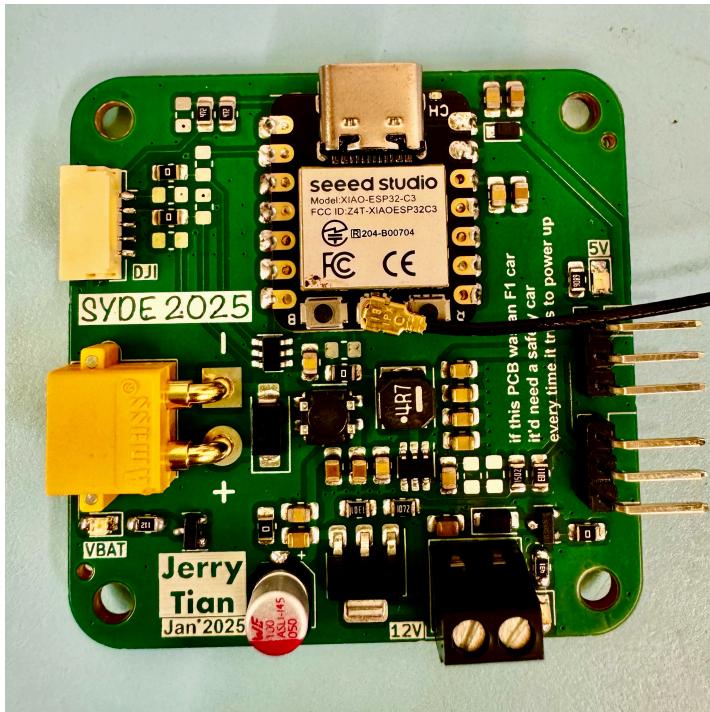


Jerry Tian

[LinkToResume](#) · 647-207-4122 · jerrytianq@icloud.com · linkedin.com/in/jerry-tianqi

Drone Payload Drop Controller

[Documentation](#)



Overview:

- Capstone Project
- 4-layer 50mm x 50mm
- 2 Servo Outputs
- 1 Solenoid Driver
- 6S LiPo Battery input with inrush current protection
- Bluetooth communication with Drone Payload

Features:

- 24-5V 2A Buck Converter
- 24-12V 500mA LDO
- ESP32-C3 Microcontroller
- Non-inverting Buffer

Tools Used:

KiCad, JLCPCB PCBA

Timeline:

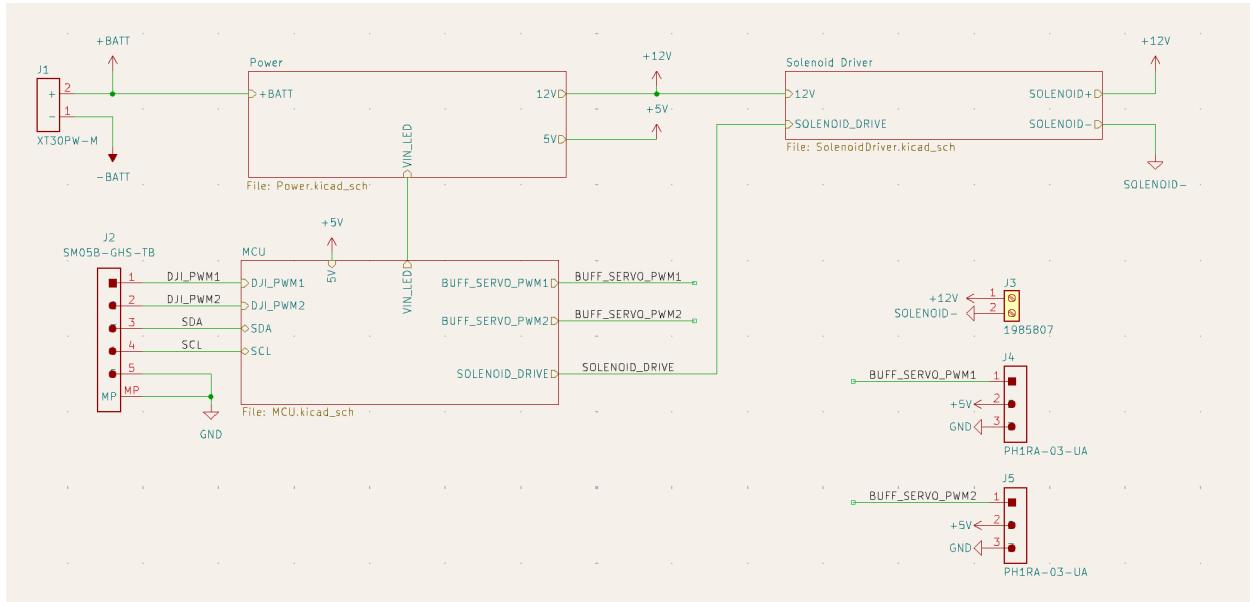
Jan 2025 - Mar 2025

Jerry Tian

LinkToResume · 647-207-4122 · jerrytianq@icloud.com · linkedin.com/in/jerry-tianqi

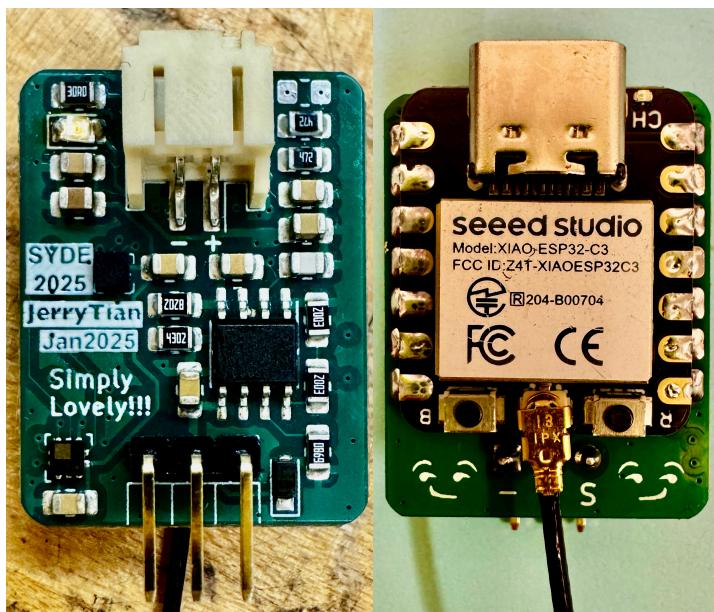
Drone Payload Drop Controller

Documentation



Drone Payload Sensor PCB

Documentation



Overview:

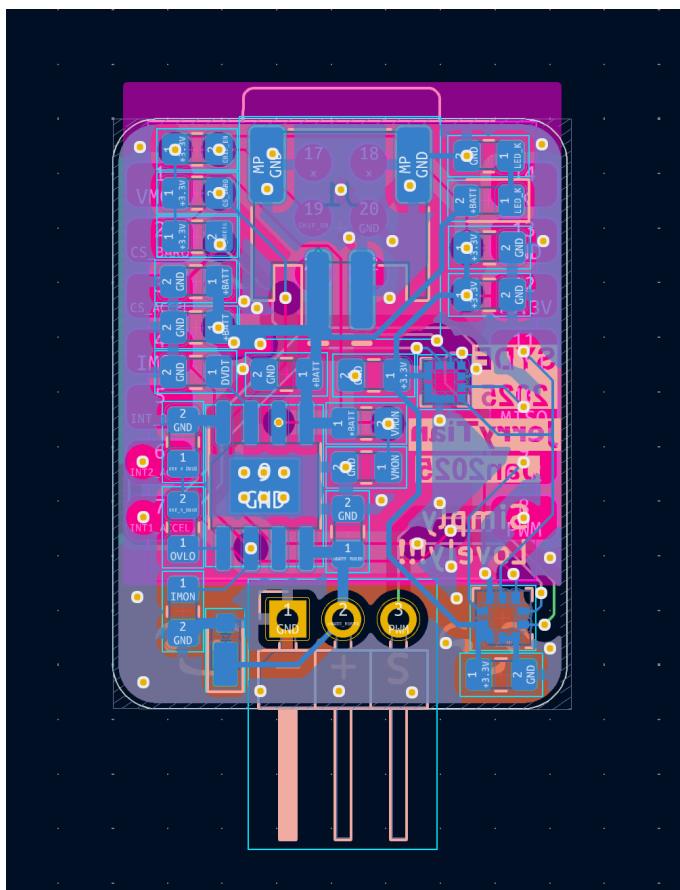
- Capstone Project
- 4-layer 21mm x 27mm
- 1 Servo Output
- Accelerometer and Barometer sensors
- 1S LiPo Battery input with over current protection
- Bluetooth communication with Payload Drop PCB

Jerry Tian

LinkToResume · 647-207-4122 · jerrytianq@icloud.com · linkedin.com/in/jerry-tianqi

Drone Payload Sensor PCB

Documentation



Features:

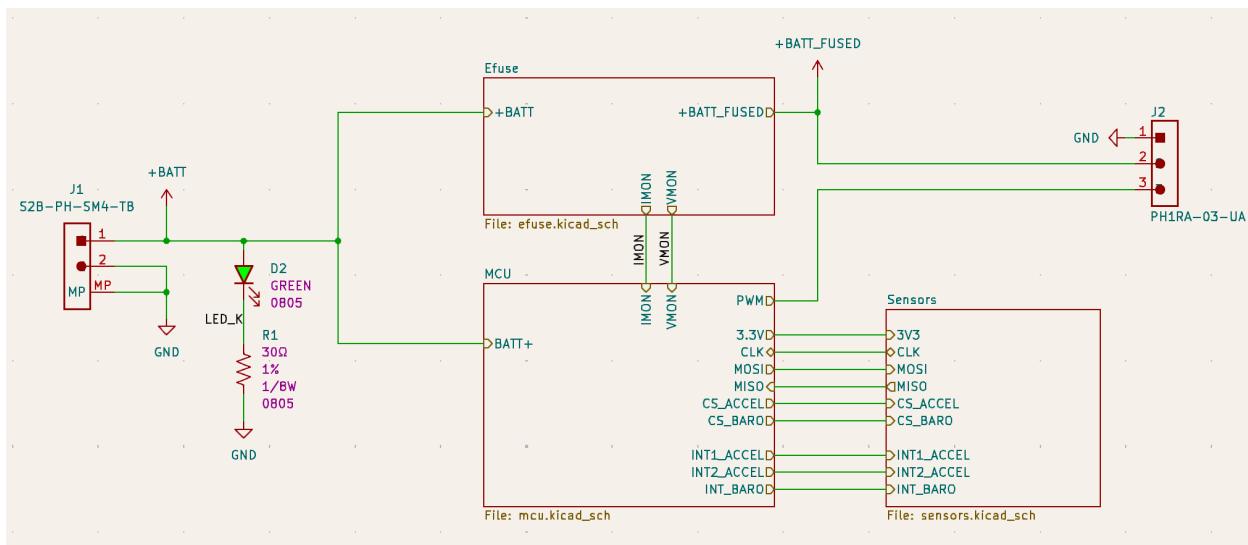
- Compact double-sided design
- Battery voltage sensing and current sensing
- Efuse over current protection

Tools Used:

KiCad, JLCPCB PCBA

Timeline:

Jan 2025 - Mar 2025

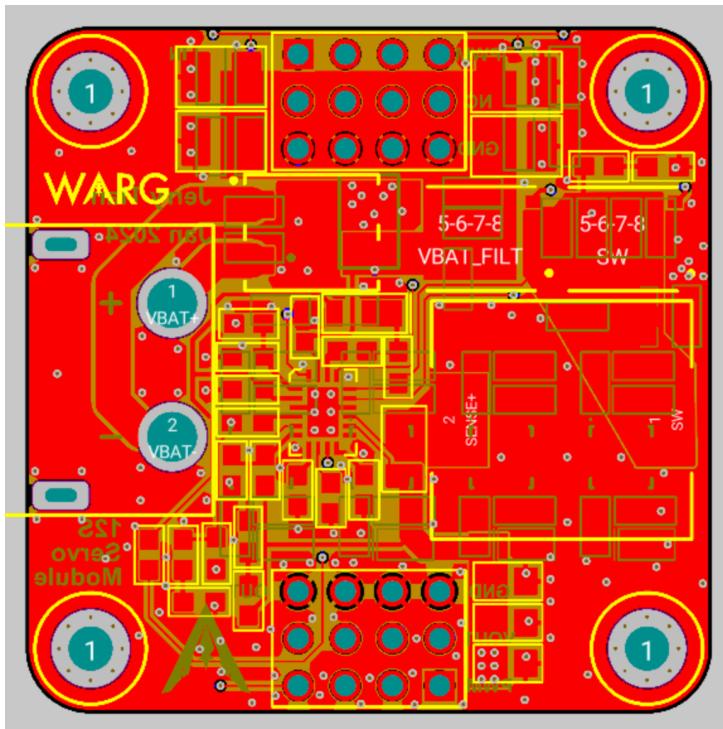
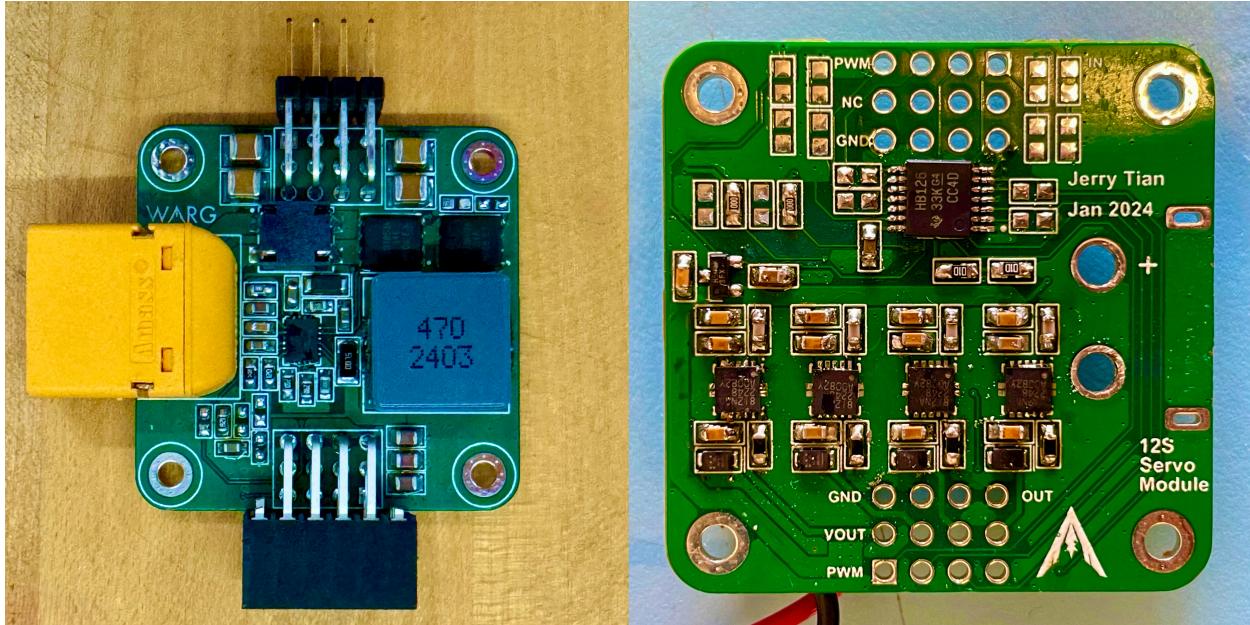


Jerry Tian

LinkToResume · 647-207-4122 · jerrytianq@icloud.com · linkedin.com/in/jerry-tianqi

PWM Servo Driver

Documentation



Overview:

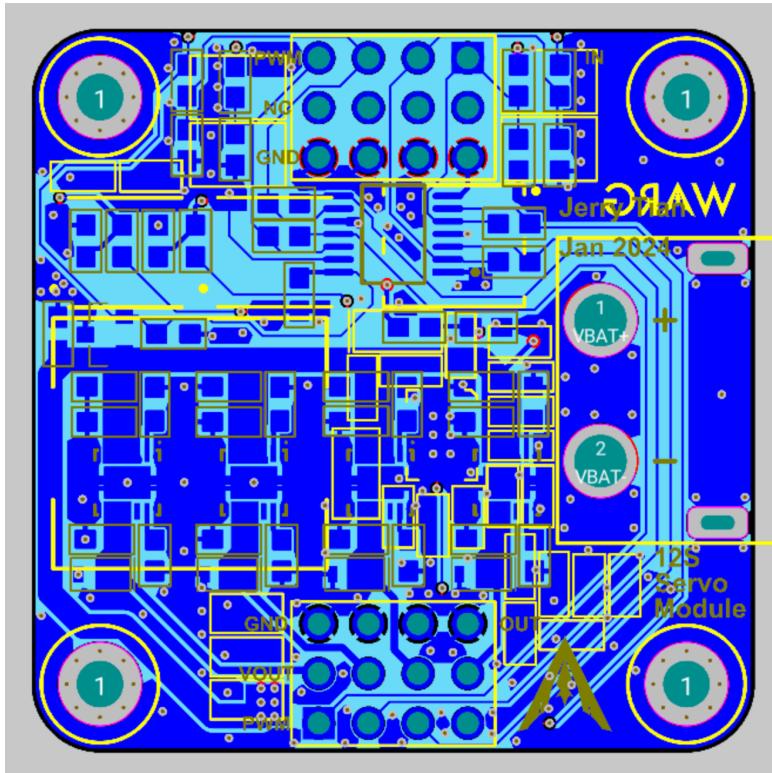
- Student Design Team Project
- 4-layer 37mm x 37mm
- 4 Servo Outputs
- 6S-12S LiPo Battery input with over current protection
- **Load Regulation and Load Transient validation**

Jerry Tian

LinkToResume · 647-207-4122 · jerrytianq@icloud.com · linkedin.com/in/jerry-tianqi

PWM Servo Driver

Documentation



Features:

- Synchronized Buck Controller Design
- Common Mode Filter
- PWM Buffer

Tools Used:

Altium, Reflow Soldering,
Oscilloscope, Eload

Timeline:

Aug 2023 - Apr 2024

