Cooling System

EGR314 Spring 2025: Embedded Systems Design Project II

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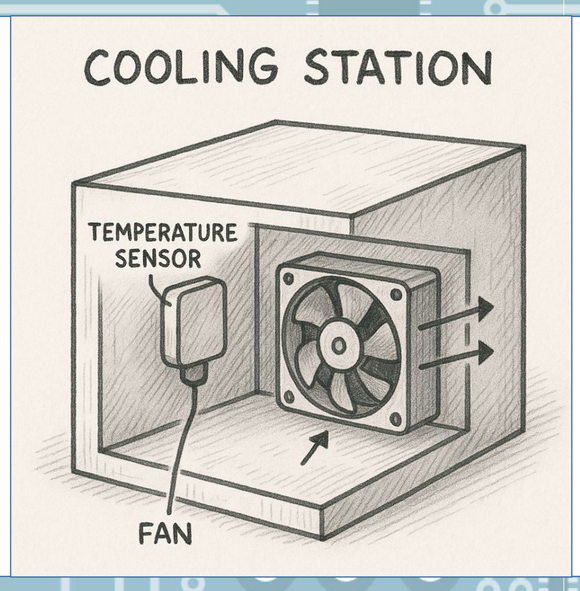
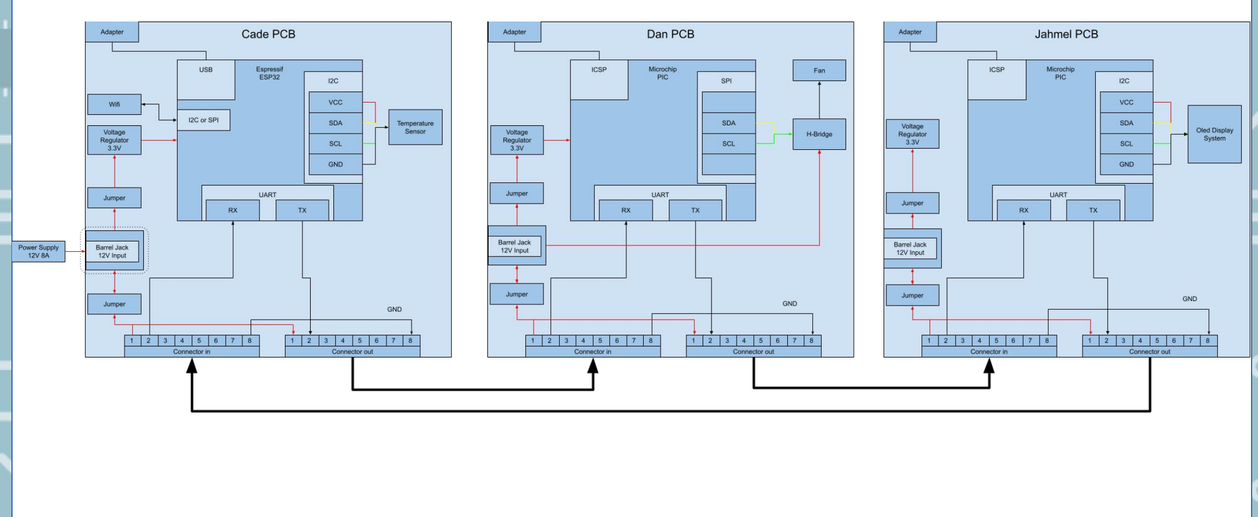
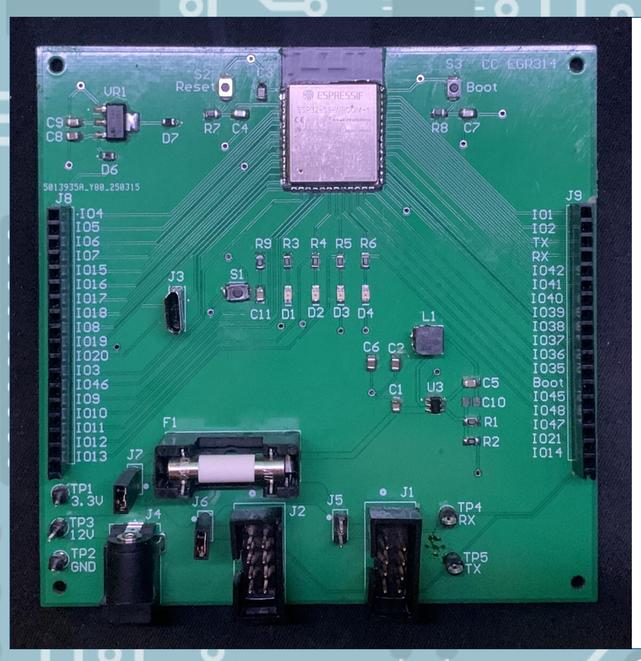


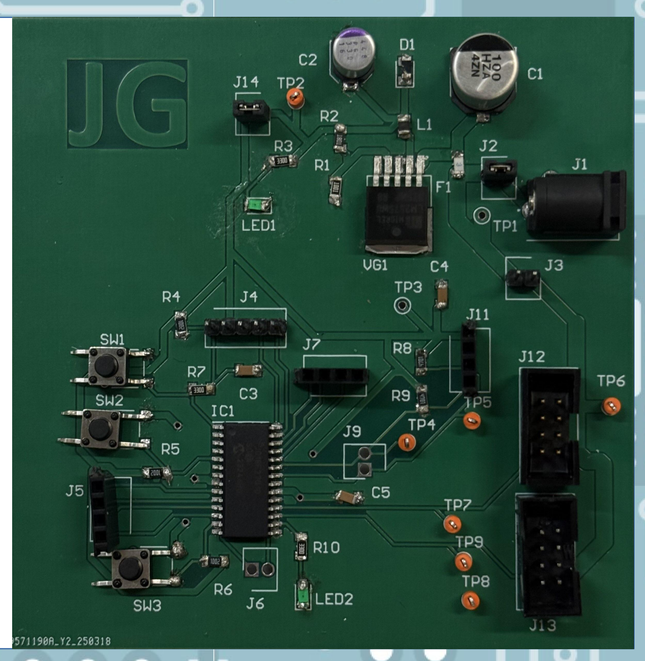
The concept drawing demonstrates a **cooling system**. A **temperature sensor** inside monitors heat, while an external **heat lamp warms** the system. The sensor data **triggers** a **fan to cool** the enclosure. Both the **temperature and fan status** are displayed on an **OLED screen** outside, which also allows **manual control** of the **fan's speed and direction**.

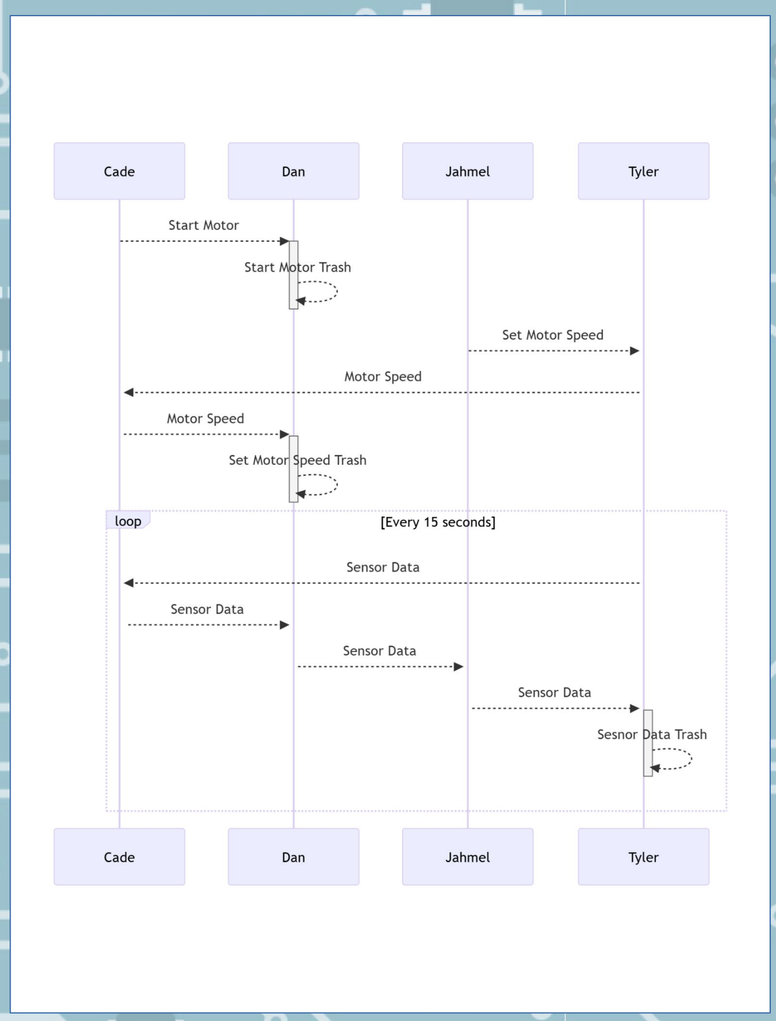
- **Cade PCB:** Acts as the central controller providing power and Wi-Fi capability and data collection
- **Dan PCB:** Manages control of fan through H-bridge
- **Jahmel PCB:** Handles user control via OLED display and interface buttons



- **System Initialization:** Cade initiates the system startup process, which toggles an LED for everyone.
- **Motor Speed Configuration:** Jahmel sets the motor speed, which is communicated to Cade through Dan.
- **Sensor Data Loop:** Every 15 seconds, sensor data is collected and passed sequentially through the team, ending with Tyler, who discards redundant data as needed.







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