

| ID | Date Initiated | Date Resolved | Description | Participants | Options | Risk Type | Resolution | Justification | |
|-----|----------------|-----------------|---|------------------------|--|---------------------------|--|--|--|
| R15 | 03/14/2025 | 04/02 | footage collected has around 30% time image quality is off (motion blur occurred as well) | Lance, Jet, Josh | rtsp IR stream, taking IR snapshot every 0.5 sec | Technical | | | |
| R14 | 03/10/2025 | est. 04/10/2025 | DJI batteries used are more than 2 years at least | Gwen, Lance, Josh, Jet | filter out old battery by battery serial number, as well as the swelling ones; and perform voltage testing | Hardware/Operational Risk | ordered new one. waiting for delivery | | |
| R13 | 03/10/2025 | 03/20 | inconvenient to transport the drone | Jet, Gwen, Josh | put payload underneath and not as much on top | Technical | Update Mechanical Overhaul, leaving only Rajant Radio, RFD 900, and GPS compass on top | safe because we protect orin and other components from rain, robust since we keep compass and radio systems on top for connection and GPS location | |
| R12 | 03/10/2025 | 03/28 | drone fly time too short ~ 15min (25min competition). | Gwen, Josh | reduce weight (current is 3.55 which uses battery fast) by removing prop shield and plate and switching to smaller antenna radio system; | Resource | remove led lights, cuts unnecessary wires, switch to lighter & shorter cables | simple resolution without other mechanical components redesign | |
| R11 | 03/10/2025 | / | unexpected competition scene setup - smoke, dark, collaborate / guide spots | All | sticking with the original white-hot mode and focusing on isotherms (isolating the temperature range to 0°C to 50°C) | Programmatic | working on it. decision making by Airlab | | |
| R10 | 03/10/2025 | / | something that covers on human body causing model confusion | Lance, Wuyi | Use isotherms to isolate the temperature range of the human body (e.g., 30°C to 40°C) and ignore anomalies caused by coverings | Technical | working on it. decision making by Airlab | | |
| R9 | 03/02/2025 | 03/07/2025 | NREC not available for Test Flight until 4PM | All | Test flight after 4PM; Book Flight Test at Mill19; Ask for availability a week before flight test | Resource | Test flight after 4PM | More familiar with NREC facility and Mill19 flight test area does not have power outlet | |
| R8 | 03/01/2025 | 03/08/2025 | JETI package arrived late | Gwen, Jet | Wait and ask Chris Downey for help; Order a new one | Resource | ask Chris for tracking number, and work on safety test flights while waiting for the package | Ordering a new one requires more time | |
| R7 | 02/24/2025 | 02/24/2025 | motor rewiring failed | Jet, Yufan, Josh | redo wiring based on prev doc image; | Technical | redo wiring based on prev doc image; | only available solution | |
| R6 | 02/23/2025 | 02/23/2025 | GPS not detected | Yufan | reassemble the drone; test different GPS location & height | Technical | test GPS outside & relocate GPS | inconvenient but fast solution | |
| R5 | 02/23/2025 | 03/08/2025 | Gimbal micro-coaxial cable broken (one pin deattached) | All | fix by techspark; fix by ECE expertise at CMU; borrow one from Airlab; order new one | Technical | order new one | only available solution and fast | |
| R4 | 02/05/2025 | 02/23 | Doodle Labs radio system signal too weak | Yufan, Jet | order new NDAA-compliant radio; borrow one from airlab; leave it and fix after workshop in March | Technical | order RFD 900x radio system while using doodle labs | safe | |
| R3 | 02/05/2025 | 02/20/2025 | Teledyne FLIR camera video&imgs cannot stream | Gwen, Yiwu, Jet | recheck wiring; redo tutorials of installation; | Technical | combined options | reduce risks of unsafe flight and delayed test | |
| R2 | 01/10/2025 | 01/15/2025 | propellers broken during test flight | Josh | Get backup prop from airlab; order backup prop online; mount Mechanical components for further protection | Technical | combined options | reduce risks of unsafe flight and delayed test | |
| R1 | 01/10/2025 | 01/15/2025 | legs broken during test flight | Josh, Jet | order backup legs & legs extension & rubbers | Technical | order backup legs & legs extension & rubbers | reduce risks of unsafe flight and delayed test | |