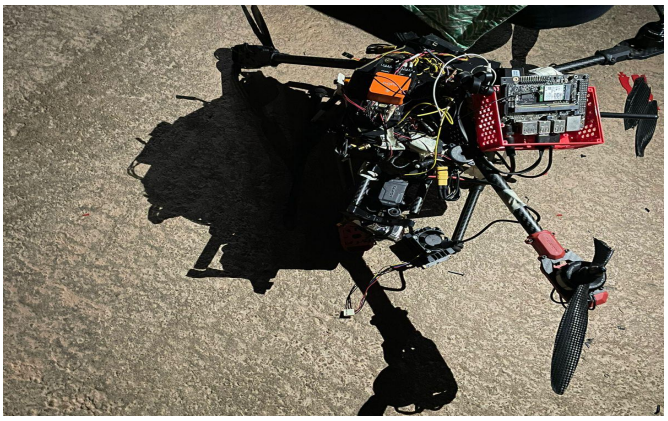
Date :06/12/2023
Time:6.00pm
Pilot:Saathvik
Agenda of the flight: Test the new algorithm for the downward facing camera and the lidar (test1.py).
Reason for the Crash :

Detailed Explanation of the crash:

- Attempted to arm the drone in loiter mode, but encountered arming issues. Eventually took off in Stabilize mode and switched to loiter. The drone exhibited abnormal behavior in loiter mode, prompting a switch to land mode.

UAV LOG VIEWER ANALYSIS:

Footage:



Modes of testing:
Stabilise,Loiter and land

Damage Analysis:

- 2-Booms broken
- 1 motor broken
- Props broken
- Lidar broken
- Jetson broken can't be fixed
- Pixhawk USB port broken (can be fixed?)
- Realsense Camera, battery, are safe,to be tested once.

Precautions to be taken in future flights:

- Test the code in Gazebo before testing on the drone
- Verify sensor calibration before each and every flight
- Complete one control flight in each mode before testing drone with algorithm

Procurement list and the expenditure:
Tarot Frame - Rs. 14,500
https://robu.in/product/tarot-650-sport-quadcopter-frame-with-motorized-landing-gear/
New sets of t-motor-

Lidar- Rs. 4,394
https://robu.in/product/tfmini-plus-lidar-distance-sensor-for-drones-uav-uas-robots-12m/
Jetson- Rs. 16,553
https://www.flipkart.com/nvidia-jetson-nano-developer-kit-4-gb-gddr4-graphics-card/p/itm0a81bd4173204?pid=GRCGTNUXWGYHMNQY&lid=LSTGRCGTNUXWGYHMNQYURJN4I&marketplace=FLIPKART&cmpid=content_graphics-card_8965229628_gmc

What next?

1. Get the drone fixed and flying with the new parts
2. Resume testing