**eYSIP – 2016**

**Autonomous Drone**

**Completed and Upcoming Tasks as of 6/6/2016**

**Completed:**

1. Calculations for deciding the components to be used for drone.
2. Assembly of Drone.
3. Calibrating APM.
4. First Manual Test Flight

**Upcoming:**

1. Preparing a tutorial on “How to decide what parts to use for building a quadcopter?”
2. Tutorial on “Setting up your APM, calibrating all devices”.
3. Interfacing GPS with APM and reading values from it. Prepare a tutorial for the same.
4. Interfacing Ultrasonic Sensor with APM and reading values from it. Prepare a tutorial for the same.
5. Setting up the Raspberry Pi.
6. Create a Power distribution system for the drone, RPi and APM. Prepare a tutorial for the same.
7. Interfacing the Raspberry Pi with APM. Prepare a tutorial for the same.
8. Manual flight using Raspberry Pi (remote login). No need to prepare a tutorial for this but the code should be well commented.
9. Auto take-off and landing using Raspberry Pi. Well commented code.
10. Designing of Path Planning Algorithm to travel from one GPS location to another. Prepare a tutorial for the same.
11. First Completely Autonomous Test Flight.
12. Debugging.
13. Adding features. Prepare tutorials if required.