**eYSIP – 2016**

**Autonomous Drone**

**Completed, Under Review and Upcoming Tasks as of 27/6/2016**

**Completed:**

1. Calculations for deciding the components to be used for drone.
2. Assembly of Drone.
3. Calibrating APM.
4. First Manual Test Flight
5. Interfacing GPS with APM and reading values from it.
6. Interfacing Ultrasonic Sensor with APM and reading values from it.
7. Setting up the Raspberry Pi.
8. Create a Power distribution system for the drone, RPi and APM.
9. Interfacing the Raspberry Pi with APM.
10. Manual flight using Raspberry Pi (remote login). No need to prepare a tutorial for this but the code should be well commented.
11. Auto take-off and landing using Raspberry Pi.

**Under Review:**

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. Prepare a tutorial on interfacing the GPS with APM.
4. Prepare a tutorial on Power distribution system.
5. Prepare a tutorial on interfacing the Raspberry Pi with APM.

**Upcoming:**

1. Prepare a tutorial on interfacing the Ultrasonic Sensor with APM.
2. Commenting the “Manual flight using Raspberry Pi” code.
3. Commenting the “Auto take-off and landing using Raspberry Pi” code.
4. Designing of Path Planning Algorithm to travel from one GPS location to another. Prepare a tutorial for the same.
5. First Completely Autonomous Test Flight.
6. Debugging.
7. Adding features. Prepare tutorials if required.