**eYSIP – 2016**

**Object Tracking Camera**

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

**Completed:**

1. Colored Object tracking using HSV.

**Upcoming:**

1. Deciding components for Camera + Gimbal System. Prepare a tutorial on “How to make your own gimbal?”. This should include the compatible camera section in the end.
2. Preparing a tutorial on “Colored object tracking using HSV”.
3. Colored Object tracking (based on ROI selection). Prepare a tutorial on the algorithms used. For eg. “What is Mean Shift Algorithm? How to implement it using Python and OpenCV?”. Do this for each algorithm used.
4. Re-recognizing the colored object if it escapes and comes back into the frame. Tutorial on algorithm used.
5. Setting up the Raspberry Pi.
6. Assembling the camera + gimbal system.
7. Interfacing the camera and gimbal system with the RPi. Tutorial on “How to interface the camera and gimbal system with Raspberry Pi?”.
8. Any object tracking (based on ROI selection). Tutorial on “ROI based Object Tracking”.
9. Re-recognizing the object if it escapes and comes back into the frame. Tutorial on algorithm used.
10. Keeping the object on the center of the screen by moving the camera.
11. Creating a GUI for the user to access the Object Tracking Application.
12. Debugging.
13. Adding features. Tutorial if required based on features added.