

Weekly Status Report 5

Team 42 – Quadcopter Cameraman
September 30 – October 10

This week's accomplishments

- Single Target Tracking (Nate)
 - Work through openCV tutorials with python (Nate)
 - Incorporate multithreading to process images in background while maintaining a steady video stream (Nate)
 - Identified faces and eyes (Nate and Luke)
 - Structured code into separate files
 - Rolling history array for target last known location (Nate)
 - Trigonometric functions (Nate)
 - Predict next point given a series of points (Nate)
- Luke
 - Work through tutorial on how to create personal haar cascade.
- Hardware
 - All parts ordered.
- Responsiveness Non-Functional Requirement (Alex)
 - Defined and quantified responsiveness to mean response time of less than 25 ms (average human response time)
 - Calculated rough estimate for amount of Pings the sonar can get within that 25 ms period
- Data Processing (Alex)
 - Began planning for data processing code
 - Began timing diagrams
 - Made Data Input Flowchart from which I will model the code
 - Includes error handling
 - Throws out nonsense values
 - Averages data points
 - Researched Ping Sonar waveform max time to make one request 20ms
- User Application
 - Basic buttons created (Isaac)
 - Set up android app communication stream by creating strings and turning them into byte arrays (Isaac)

Planned to accomplish next week

- Luke
 - Create python module to handle communications from Android App
 - Project Plan

- Nate
 - Identify full faces
- Alex
 - Apply scheduling for camera sensor
 - Write first draft code for scheduling tasks on PI mostly focussing on the sensors right now
 - Buy toy drone for domain familiarization and moral
- Isaac
 - Continue to work on android app
 - Connect to another device and establish communications

Roadblocks

- For the app communication we need the pi to test our data streams and to begin decoding the messages to create commands

Hours Spend

Team member	Hours This Week	Hours Total
Nate Allen	11	30
Alex Nicklaus	4	24
Luke Rohl	3	27
Mir Ahbab	1	20
Isaac	3	21