FlyNet Team Minutes

9 September 2015 11:00AM – 12:50PM

Recorded by: Drew Ellison

Attending: Drew, Steve, Matt, Bryce, Taylor, Tyler, Prashant, Dr. Frew, Zohaib (telecon)

Summary:

Bi-weekly telecon with Zohaib:

* Requirements/specs must be written by PM and SE, flowing down from requirements given by customer. In no particular order:
  + >10 minute flight time
  + 1lb additional payload
  + Navigate unknown indoor environment with static obstacles
  + Search for targets
  + GPS Denied
  + 2 autonomous vehicles, at least one flying
  + Visually identify targets
  + Tag confirmed targets
  + Share maps between vehicles

Develop requirement flow down to base requirements. Every requirement should have a metric that is directly verifiable through either simulation or experiment.

An integration team will be created to work with the controls and navigation teams to integrate the two systems as they are developed. The SE will lead this team.

Trade studies need to be performed on autopilots, RGBD cameras, onboard processors, rangefinders

Follow up questions for Zohaib:

* Confirm: Test space was previously stated to consist of the Fleming lab and adjoining offices. Is this big enough, or will we expand to larger parts of the building/EC?
  + This will somewhat dictate RGBD choice / use of camera info
  + Will influence choice of rangefinder: sonic or laser
* Volumetric size of additional payload?

Action Items:

* PM and SE will write requirements based on customer project description
* An integration team will be developed
* Perform trade studies on appropriate hardware
* Perform trade studies on SLAM software solutions and Controller architectures
* Contact Zohaib about follow up questions
* Contact James Mack and Dr. Frew about purchasing hardware