

SPARR⁺OW

SGM 4/12



Drone Updates

- Added **emergency landing** safeguard
 - We had a conflict between the controller and script routines last week that resulted in as losing the ability to control the drone; the drone ended up hovering, and we had to wait until it ran out of battery and fell to the ground.
- Beginning to **perform PID tuning outside of simulator**
 - We plan on tuning first without the Tango attached to verify/familiarize other team members with tuning procedure.
 - Then, we will tune with the Tango using position updates provided by the Tango's sensors; we have an API in place for requesting Tango locations from the drone scripts.
 - We have started tuning without the Tango, but have been having some problems with wind.



MEETING WITH SAM GUSSMAN

- Have been considering use cases apart from warehouse
- Met with team from the **design for defense class** focusing on needfinding/prototyping for existing military systems
- Suggested use cases with **perimeter security** of a compound for DOD
- Offered to plan a perimeter security experiment / user test with:
 - SOGs (Sergeant of the Guard), in charge of guard duty for military bases,
 - **DIUX** representatives (mostly former military turned civilians whose job it is to evaluate potential DOD partners in Silicon Valley)
 - Commissioned military officers



Stabilizing Mount

- Previous mounting sat on rubber ball shock absorbers
- Problem: Adding a higher payload caused it to be unstable, Tango bouncing everywhere during flight
- Solution: Make the mount rigid, by drilling in screws
- Pros: Can hopefully have a much more stable flight
- Cons: More of the impact force is going to go through the payload due to rigidity



Questions

- How to best approach interaction with Designing for Defense team?
They want to work with us?
- Places indoors on campus where we could test?