Object Following Drone Use Model

5/15/16

Revision 1.0

1. **INTRODUCTION**
   This is the Use Model for Object Following Drone project. This Use Model describes how Drone Unit could be operated.
2. **HARDWARE AND EQUIPMENTS**
   - Drone Unit
   - Laptop
3. **SETUP**
   - The operation of this drone unit must be in an open field with minimum dimension 150ft by 100ft.
   - Drone Unit, laptop and object/person always be on the same vector with Drone as starting and object/person is ending point.
   - Front of the drone is facing the direction of moving.
   - During operation, object/person has to be within 20ft with respect to the drone.
   - If drone follows an operator/person, the laptop has to be either with the operator or in accessible place for controlling the drone.
4. **OPERATION**
   - Power on Drone (plug in drone battery)
   - Communicate with Drone using laptop via Wi-Fi/Bluetooth.
   - Once the communication is done, have an object or a person, that will be tracked, at 10ft away from drone.
   - Input: Image of an object or person that will be tracked and the height of that object/person.
   - Initialization – Drone will hover at input height and start tracking.
   - Movement/Tracking – Object can only move in one direction. The direction of moving is the direction of drone facing in Setup section.
   - Finish – Use laptop to stop Drone from tracking. Drone now will return to its starting point.

5. USE MODEL DIAGRAM