Lots on google about Follow Me drone applications

1. A [list of drones](https://www.wearechampionmag.com/7-drones-follow-you-follow-me-mode) w Follow Me Mode
   1. Look at each to see if any other common methods beyond telemetry (GPS aided)
   2. All are either wifi or long range bluetooth telemetry tracking
2. GPS aided
   1. [Copter](http://copter.ardupilot.com/wiki/ac2_followme/) accomplishes by
      1. Client gets GPS location of itself (laptop or phone)
      2. Client packages location into command to drone to “go here”
      3. Client does this on the order of 1hz
   2. 3D Robotics has [similar application](https://3drobotics.com/follow-me-mode/)
3. Image tracking
   1. So far, haven’t found anything that does this
   2. Why is that?
      1. Not worth the effort?
      2. Technology too immature?
      3. Ask Prof if he knows…

Spend time researching the following open source applications:

1. [Robot Operating System (ROS)](http://www.ros.org/)
   1. Potentially leverage existing API either as-is or as example code
   2. Runs on Ubuntu (don’t bother w Windows)
   3. Follow [tutorials](http://wiki.ros.org/ROS/Tutorials) (can do stuff wo hw if want, just on PC)
      1. During lecture, guy talked about a talker-listener program written in Python scripts
   4. [Wiki](http://wiki.ros.org/rosbridge_suite)
   5. Primary supported languages are Python and C++
   6. Can use ROS to communicate between two machines (LAN or wireless)
      1. Unfort, can’t run ROS on AR.Drone
      2. But may be useful to run on laptop
   7. [ROS Bridge](http://wiki.ros.org/rosbridge_suite) provides a method of interfacing ROS programs w non-ROS programs
   8. Check on compatibility w AR.Drone
      1. [Autonomy Lab](https://github.com/AutonomyLab/ardrone_autonomy)
2. [OpenCV](http://opencv.org/)
   1. [Tutorials](http://docs.opencv.org/doc/tutorials/tutorials.html) – Introduction to OpenCV will help get it set up on computer
   2. C++, C, Python, Java and MATLAB interfaces and supports Windows, Linux, Android and Mac OS
   3. [Quickstart](http://opencv.org/quickstart.html)
   4. [Wiki](https://github.com/Itseez/opencv/wiki)
   5. The library has more than 2500 optimized algorithms
   6. These algorithms can be used to detect and recognize faces, **identify objects**, classify human actions in videos, track camera movements, **track moving objects**, extract 3D models of objects, produce 3D point clouds from stereo cameras, stitch images together to produce a high resolution image of an entire scene, **find similar images from an image database**, remove red eyes from images taken using flash, follow eye movements, recognize scenery and establish markers to overlay it with augmented reality, etc
3. [Point Cloud Library](http://pointclouds.org/)
   1. …