THE UNIVERSITY OF ARIZONA

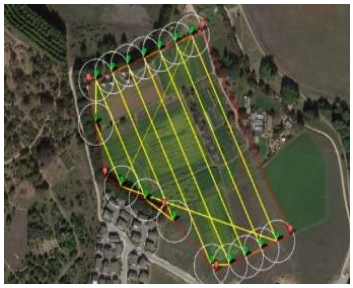
BE 385

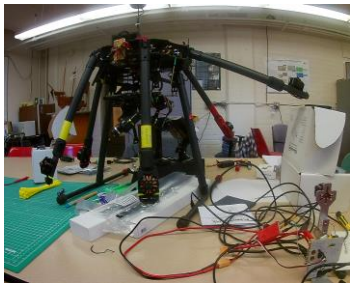
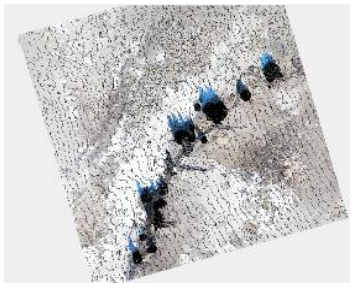
Precision Observation with Drones

Lecture (Marley 212) – T: 11:00AM –12:15PM
Lab (Marley 218) Th: 11:00 - 1:30PM or 1:30 - 4:00PM

Precision Observation with Drones is an introductory course with a hands-on lab. It stresses the practical aspects of small-scale multirotor Unmanned Aerial System (UAS) with an emphasis on quadcopters. The course will introduce the students to the new and evolving field of small multirotor drones, their electrical and electronic subsystems, how they work, how to design and build them, understand the basics of flight controller, GPS and navigation, collision avoidance, add useful miniature sensors to observe and measure the physical and biological environment. Finally learn the basics of processing drone collected images and the course ends with an introduction to government/FAA drone use rules and basic pilot licensing. Upon completing this course, the student should become familiar with small drone technology and navigation, be able to understand their potentials and limitations, be able to mount and use different sensors, plan autonomous missions, collect and analyze data. The course is aimed at all students with science and engineering background and a desire to learn this technology. The class ends with a field visit where we test the drones and collect some images to be processed at the lab.





Instructor and Contact Information

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