


The Robotics Laboratory at the
University of Central Florida presents:



An Autonomous Underwater Vehicle

About Me

- Name: Jacqueline Nelson
 - Class Standing: Senior
 - Major: Electrical Engineering
 - Interests: Autonomous Robotics, CV, RADAR, Satellite Systems
 - Future Plans: Graduate school, Department of Defense
- 

Purpose

- Compete in AUVSI and ONR's 12th International Autonomous Underwater Vehicle Competition
 - July 28th – August 2nd
 - TRANSDEC, San Diego, CA
- Learn!
 - Develop engineering teamwork skills
 - Gain “real” engineering experience

The Team



Jonathan Mohlenhoff

- Team Leader
- Undergraduate
- Electrical Eng.



Gary Stein

- Robotics Advisor
- Graduate
- Computer Eng.



Jacqueline Nelson

- Undergraduate
- Electrical Eng.



Cassondra Puklavage

- Undergraduate
- Electrical Eng.



Michael Scherer

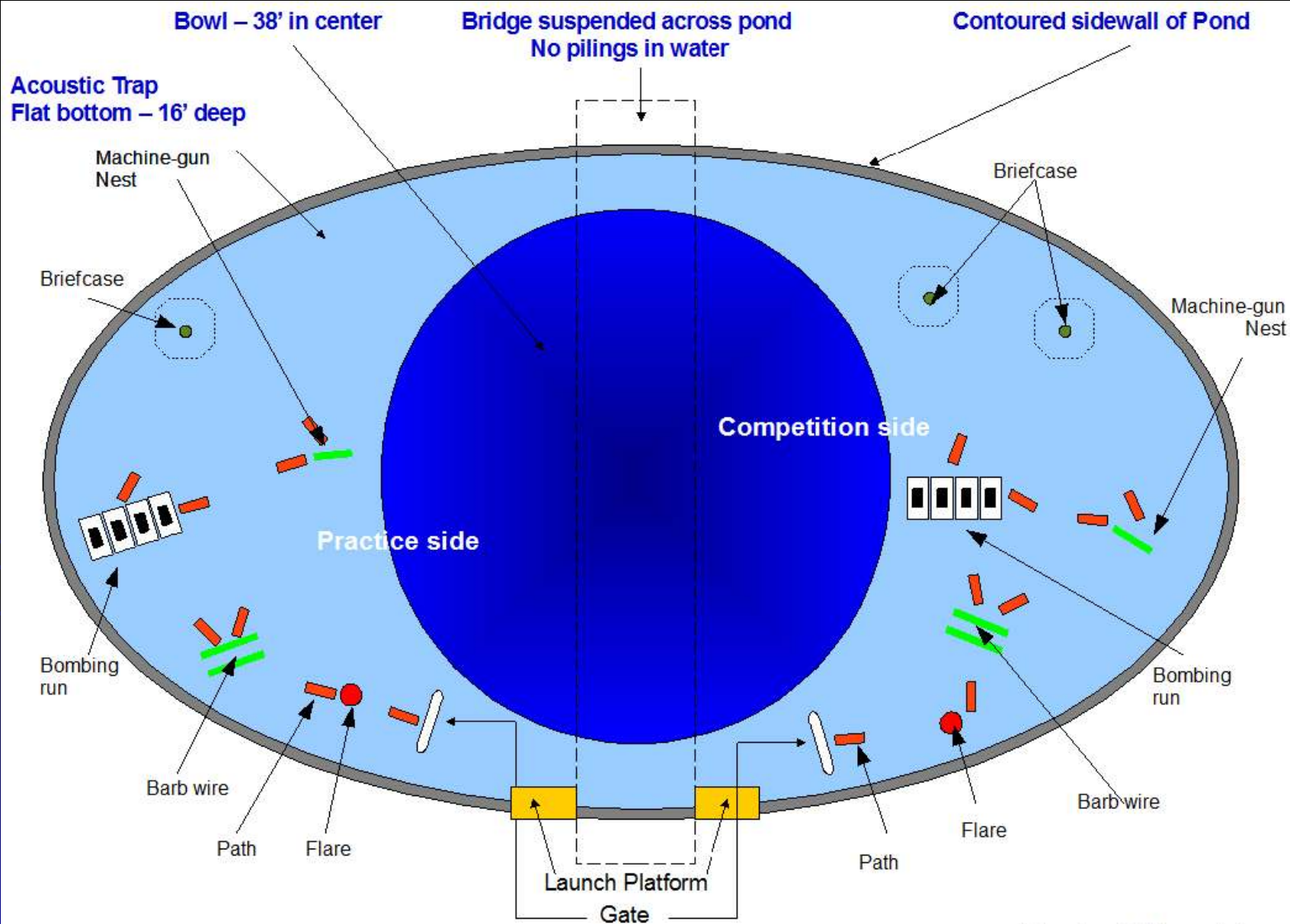
- Undergraduate
- Computer Science



David Adams

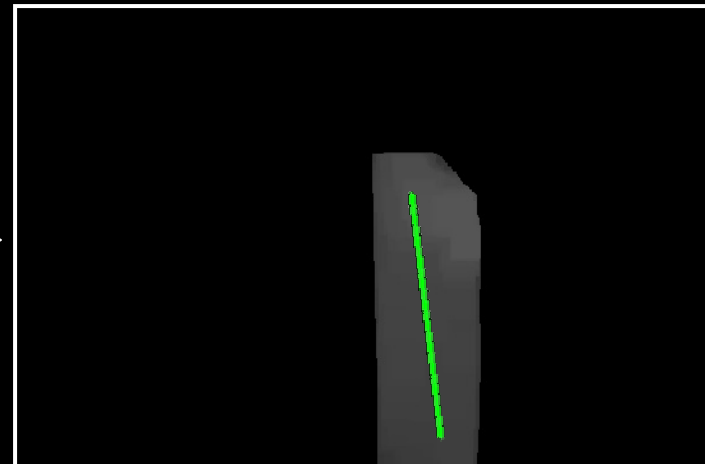
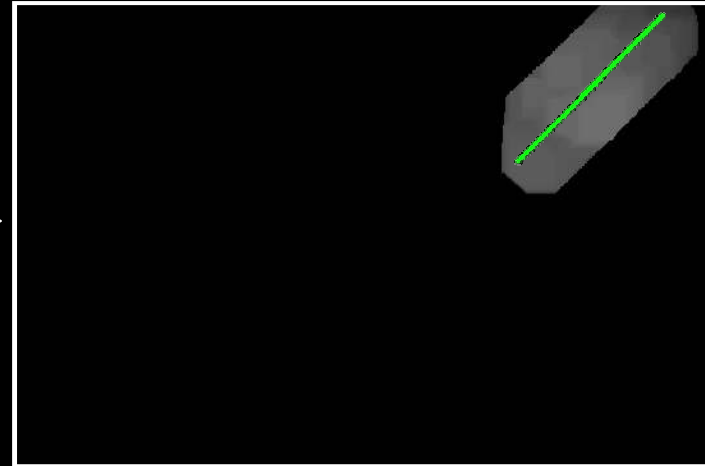
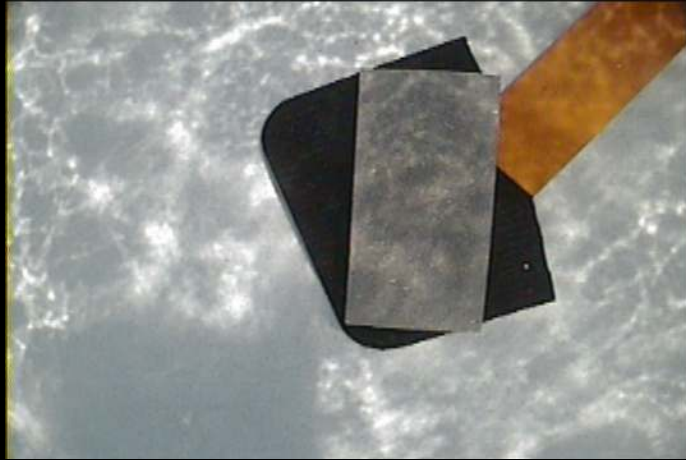
- B.S. Degree
- Computer Science

The Competition

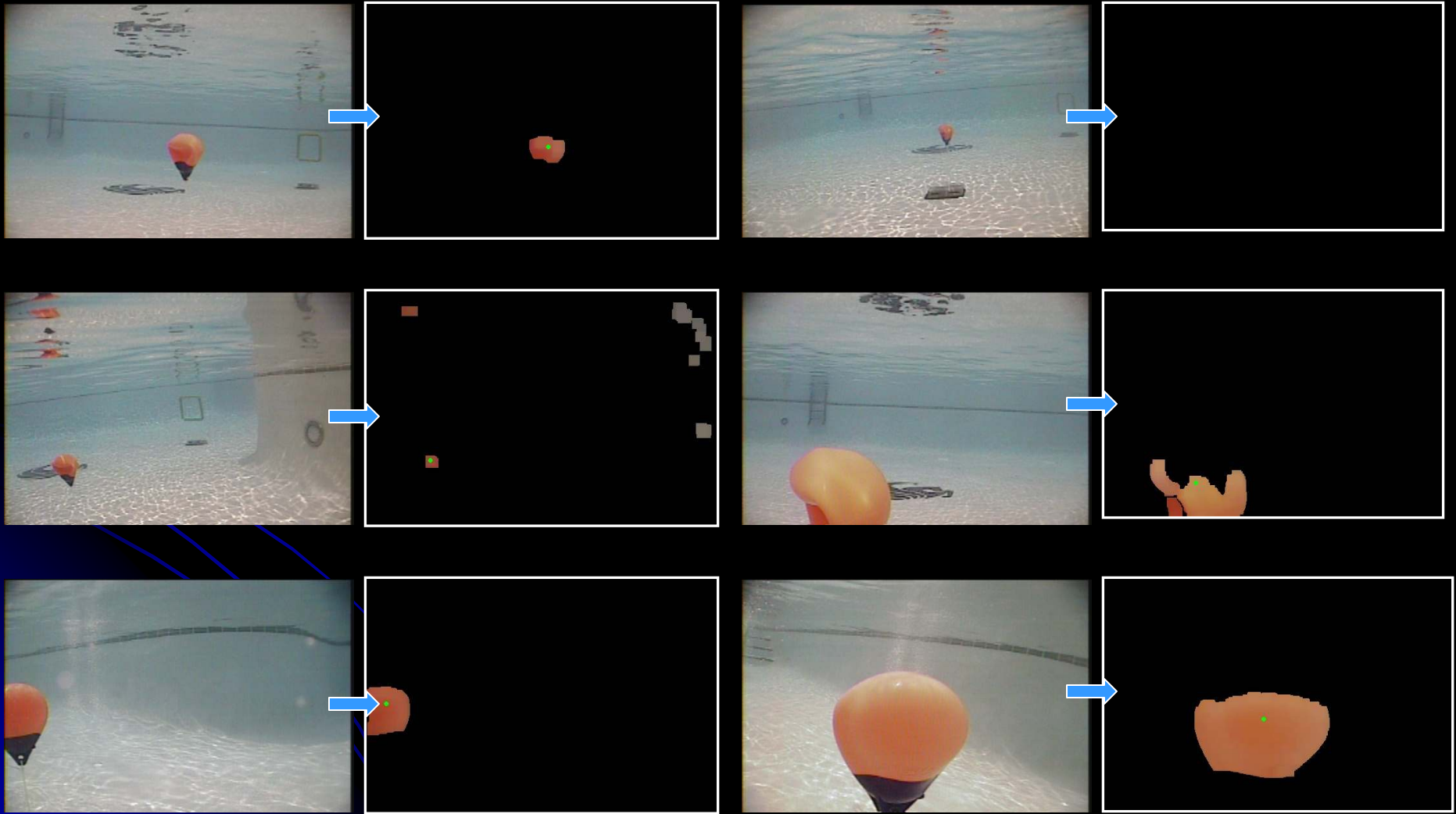


(drawing not to scale)

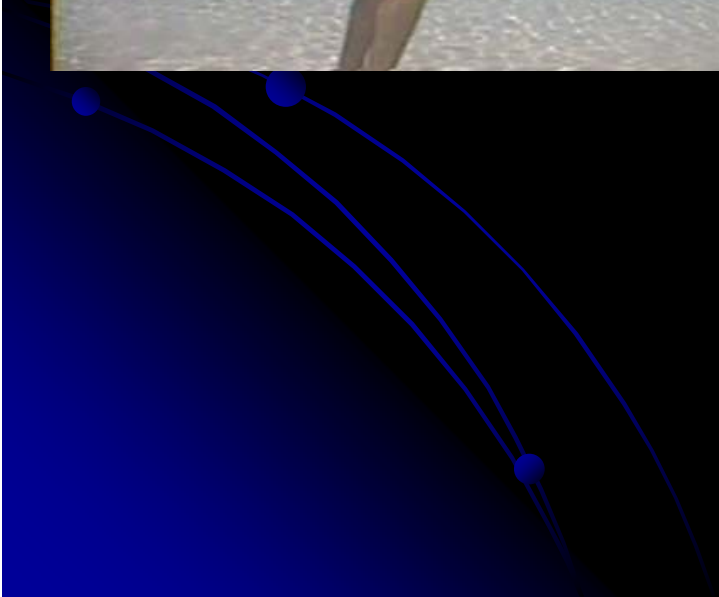
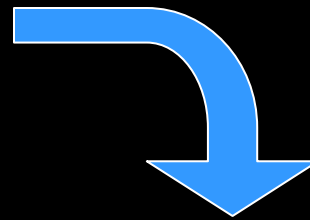
The Pipeline



The Flare



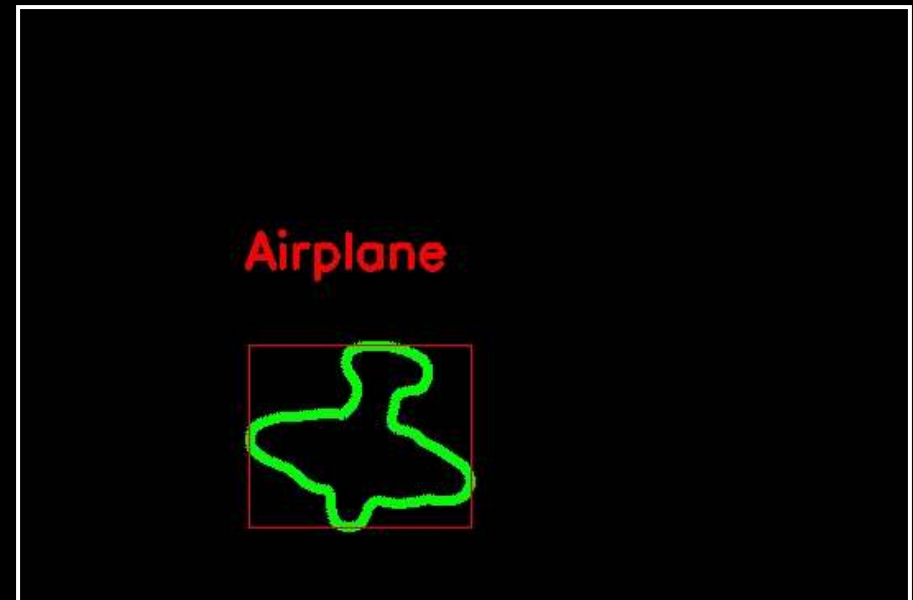
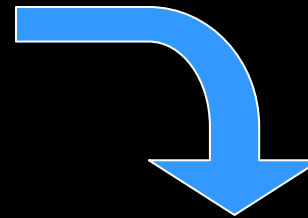
The Barbed Wire



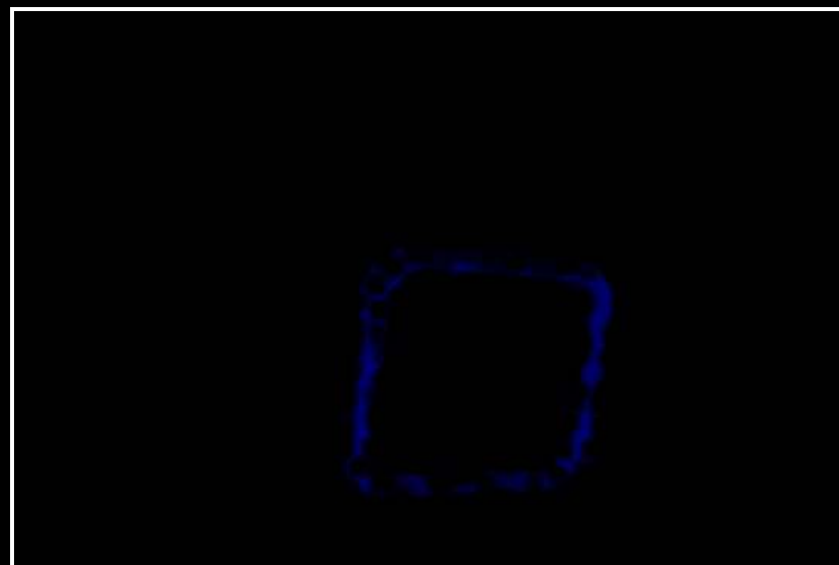
The Bombing Run



Airplane Results



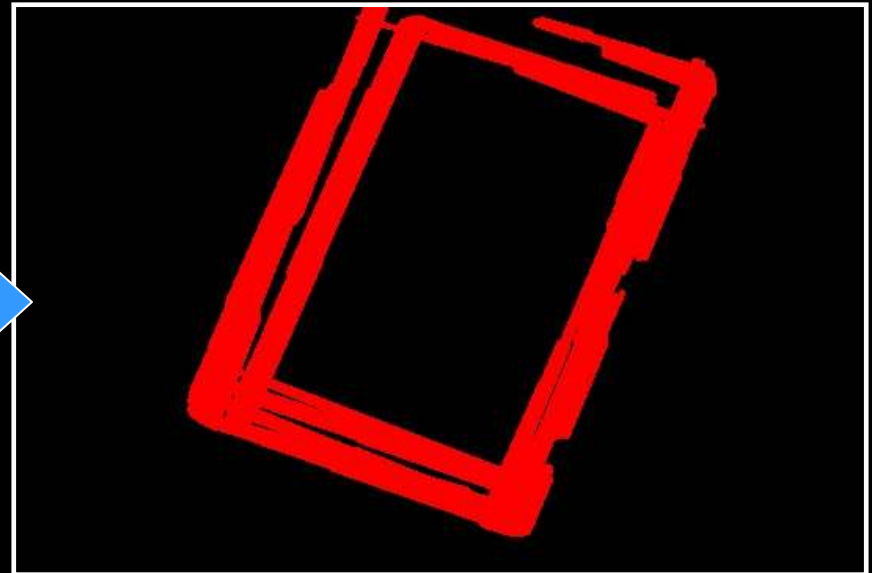
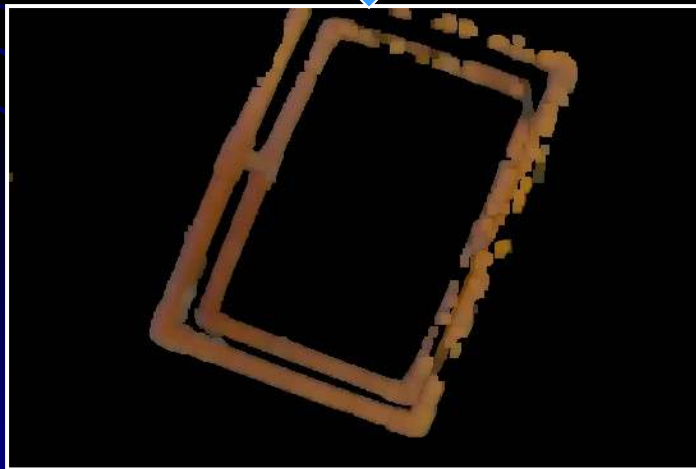
The Machine Gun Nest



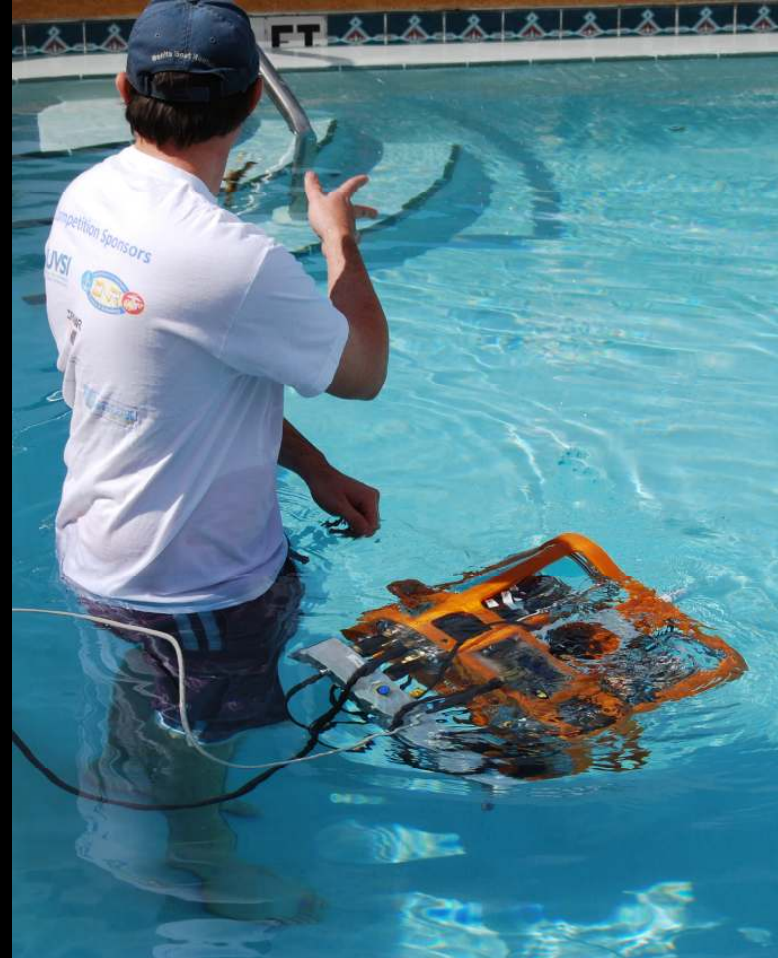
Briefcase Localization

- Location signaled by an acoustic pinger
 - Pingers are used by divers so they can be tracked if they are lost at sea
- Hydrophones in delta formation triangulate the position of the pinger
 - Team captain created a custom Printed Circuit Board (PCB) to accomplish this task

Briefcase Retrieval



Water Testing



Useful Links

- Competition:

- www.AUVSI.org

- Robotics Lab at UCF:

- www.robotics.ucf.edu

- SPAWAR/TRANSDEC:

- <http://enterprise.spawar.navy.mil/>