

REU Presentation:

Week 10

Jacqueline Nelson

A decorative graphic in the bottom-left corner consisting of three curved blue lines that sweep upwards and to the right, with three solid blue dots placed at various points along these lines.

CITRONAULT



This Week's Progress



- Lots of pool testing this past weekend
 - Autonomously completed barbed wire, machine gun nest, and flare!

Water Testing – The Bad

- Pipeline code was not perfect in the water
 - AUV wanted to turn at the last minute
- Manually tested arm with picking up briefcase
 - The state machine code was not complete for autonomous testing
- Unable to test the bombing run
 - Ran out of time, and were experiencing computer problems on shore
- Hydrophones were still not functional

Problems Faced This Week

- Unable to do water testing all week...



- We are now all sealed up and ready for more testing!

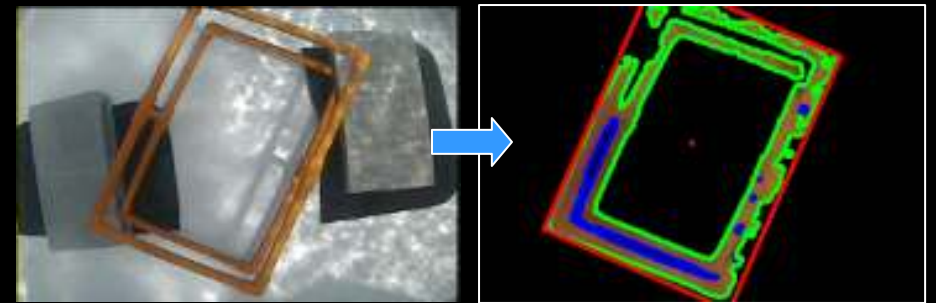
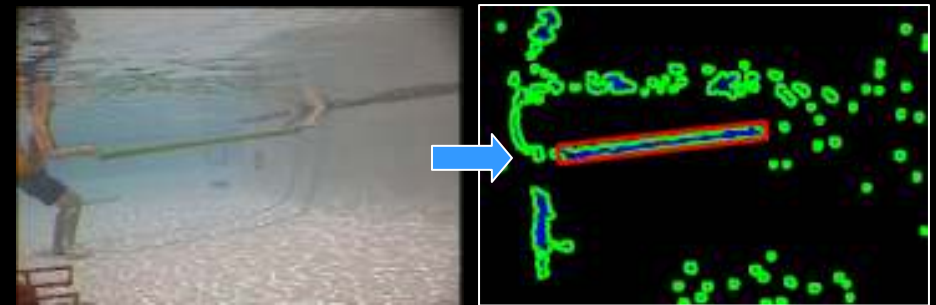
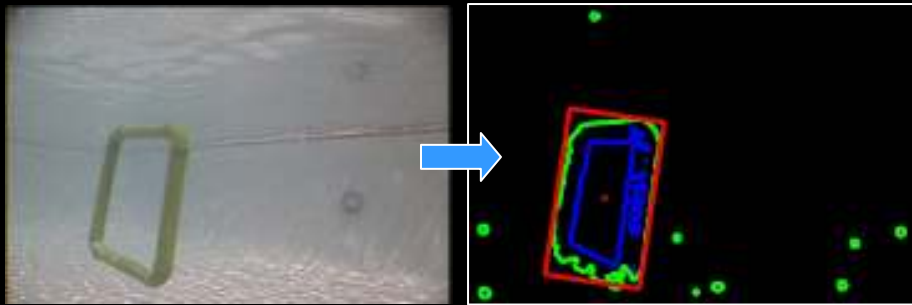
What Needs To Be Done

- Team is close to having FPGA programmed (hydrophones)
- Lots of testing
 - Bombing Run
 - Dropping of the marker IN the water
 - Mechanically, can only make a drop once
 - Pipeline
 - Briefcase pick-up
- Result comparison

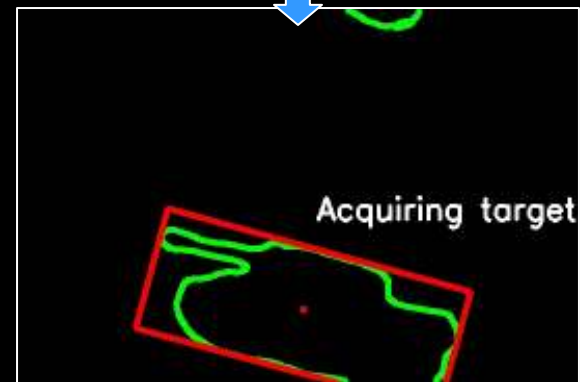
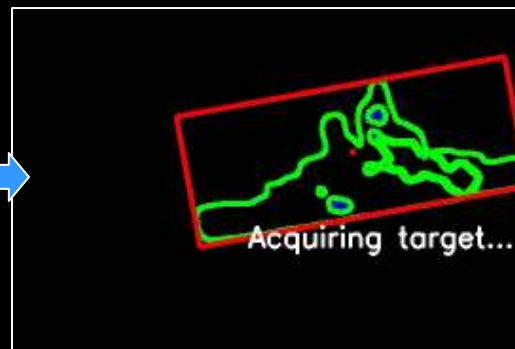
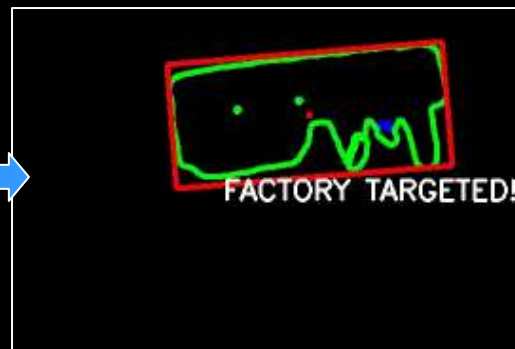
Progress

- All my code, except for the bombing run, can be called by the AI
- Bombing run code is still having trouble detecting the tank and ship
- Team member also wrote code for bombing run, using OpenCV's template matching function
 - Also has trouble recognizing the tank

(Semi) Final Results



(Semi) Final Results cont.



Goals for Next Week

- Pool testing all weekend.
- Leaving Monday night for San Diego.
- Aiming to take home the gold!

