

Progress Review 4

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Auto Pirates

Autonomous Water Taxi

Progress Review Goals

What we promised

- ▶ ☐ Get real radar data from field test.
- ▶ ☐ Prepare the ROS publisher to send commands to boat (waypoints, actions, etc)
- ▶ ☐ Show planned path on custom Occupancy Grid Map
- ▶ ☐ Improve filtering of radar data (dependent on field test)
- ▶ ☐ Solder and complete the PCB

Demonstration – Perception

- ▶ ☒ Show real radar data from field test.
- ▶ ☒ Play recorded video with radar data and boat overlaid on map

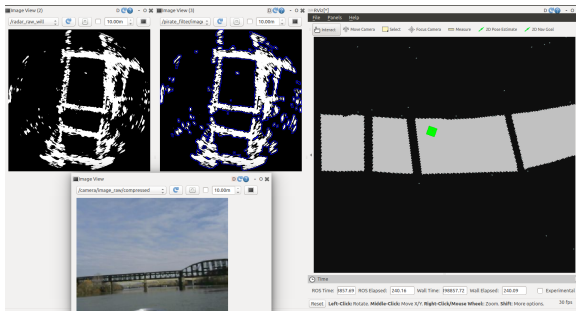


Figure : Raw Radar Data and Visualization

Demonstration – Path Planning

- ▶ ☒ Show planned path on actual river map
- ▶ ☒ Show improved RecBoat GUI with UTM coordinate input

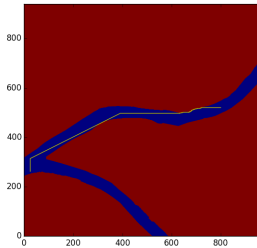
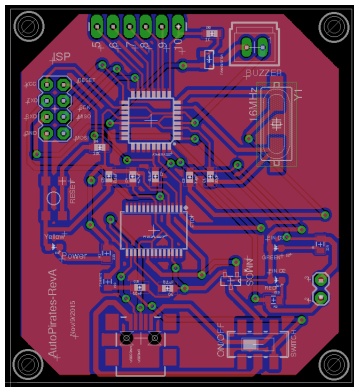


Figure : Occupancy Grid Map

Next Steps

Getting ready for the FVE

- ▶ ☒ Overlay radar data on map, then we can distinguish shores and bridges
- ▶ ☒ Improve path planning simulation. Tune parameters on SBPL and display on Stage
- ▶ ☒ Finish PCB



Thank You

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AUTO PIRATES