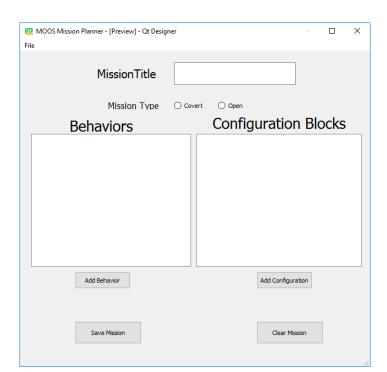
#### S.A.T.I.R.E. Autonomous Underwater Vehicle

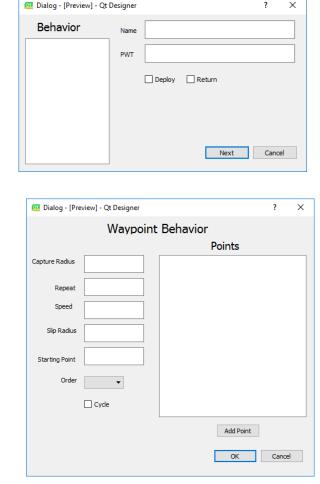
### Sean Small, Taylor McRae, Robert Booth, Clayton Esposito

Faculty Advisor: Dr. Phil Bernhard, Dept. of CSS, Florida Institute of Technology

### Introduction

- The SATIRE project is a covert AUV for the purpose of remote observation.
- The AUV is intended to collect data from multiple sensors that will be collected in an onboard database.
- The device will operate based on a pre-planned mission script.





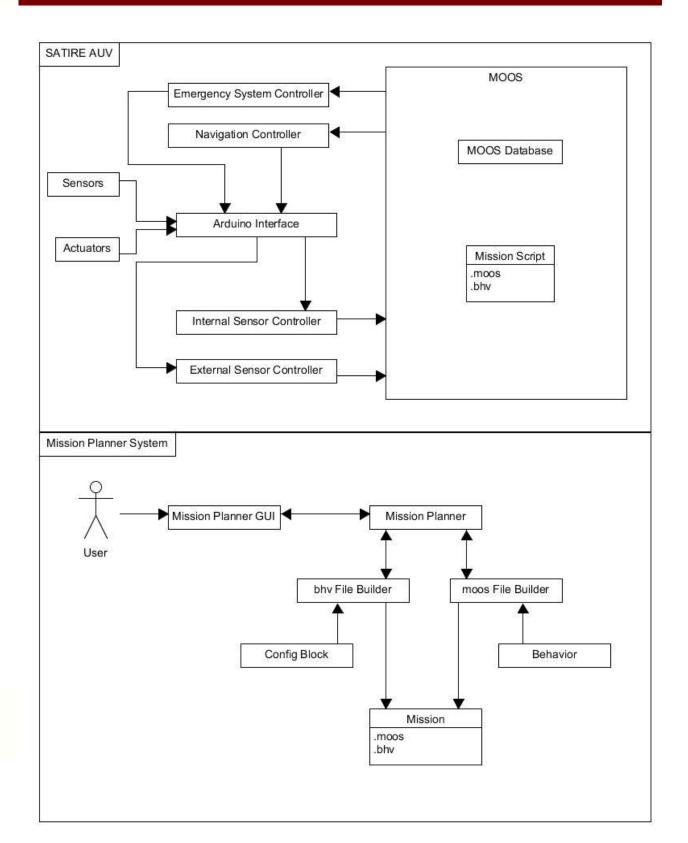
## Approach

- Uses the Mission Orientation Operating System developed by MIT and Oxford for AUVs as the system OS.
- Sensor data is sent from an Arduino board into the MOOS Database, and received by subscribing modules.
- A mission planner is used for automated mission script generation.

### **Features**

- Fully autonomous operation of a predefined mission plan.
- Emergency response system to detect system malfunctions and take actions base on the mission type.
- Use of a windows application for the creation of mission scripts.

# **System Architecture**







Engineering & Science Student Design Showcase at Florida Institute of Technology

