

AUV Mark IV

Autonomous Underwater Vehicle Development

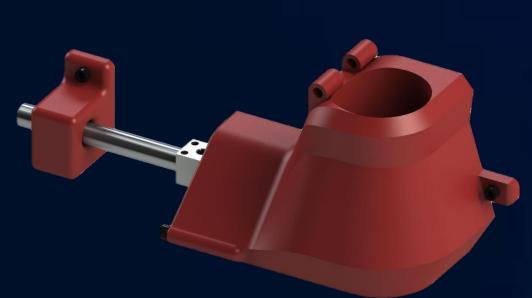
University of Idaho College of Engineering

Problem Definition:

Design and produce a working, autonomous submarine capable of completing specified tasks for the 2015 ROBOSUB competition.

Competition Tasks:

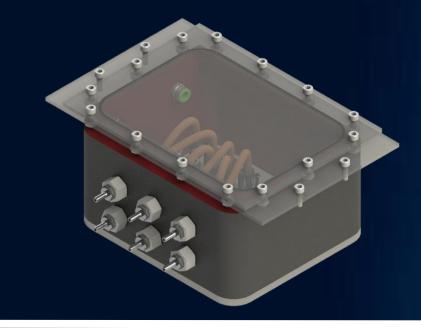
- Go through a starting gate
- Navigate from task site to task site on a course using visual and audio cues
- Drop markers at specified locations
- Accurately deploy torpedoes at targets



Marker Dropper:

- Pneumatically Operated
- Discrete System
- Robust Design

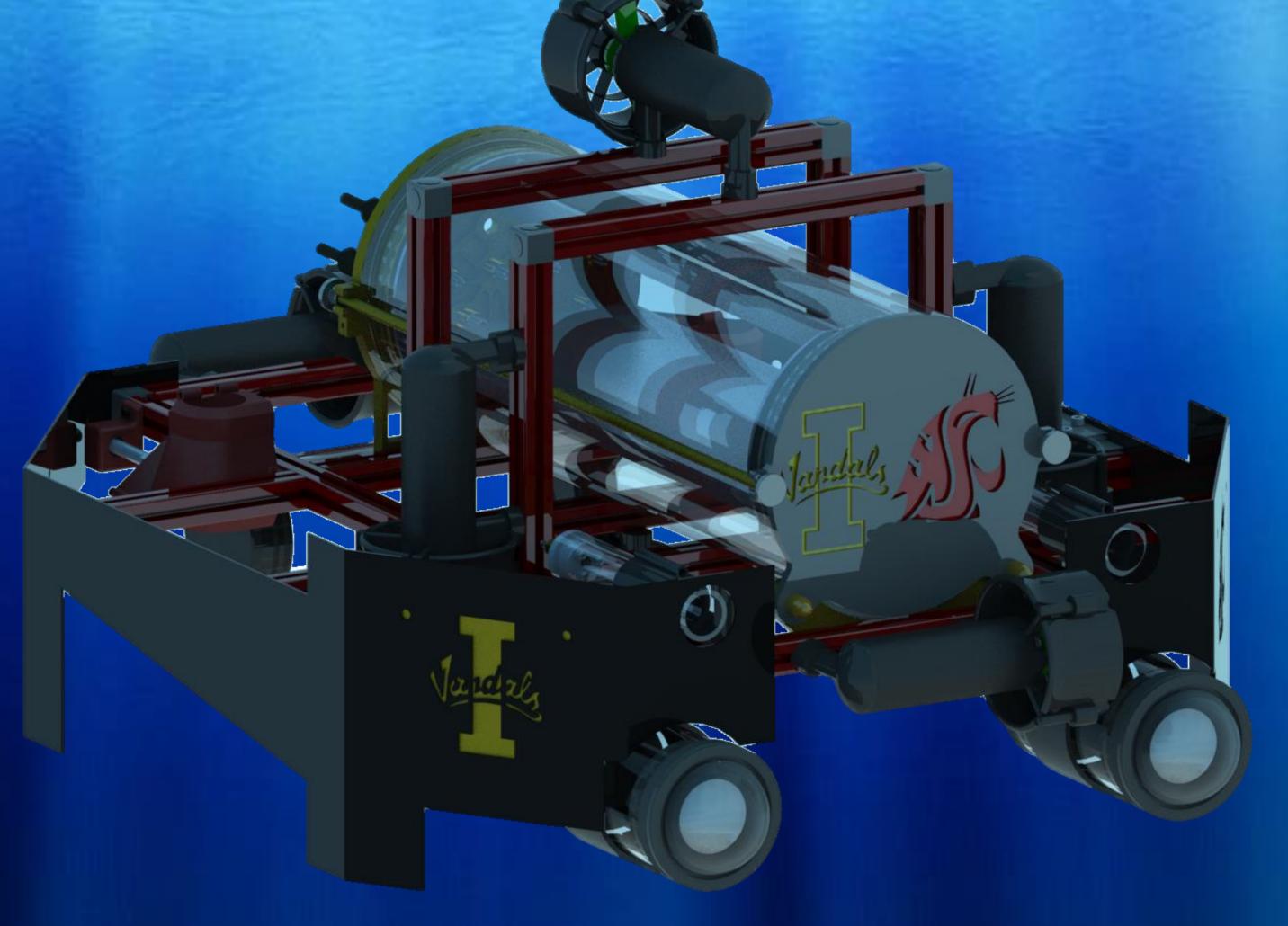






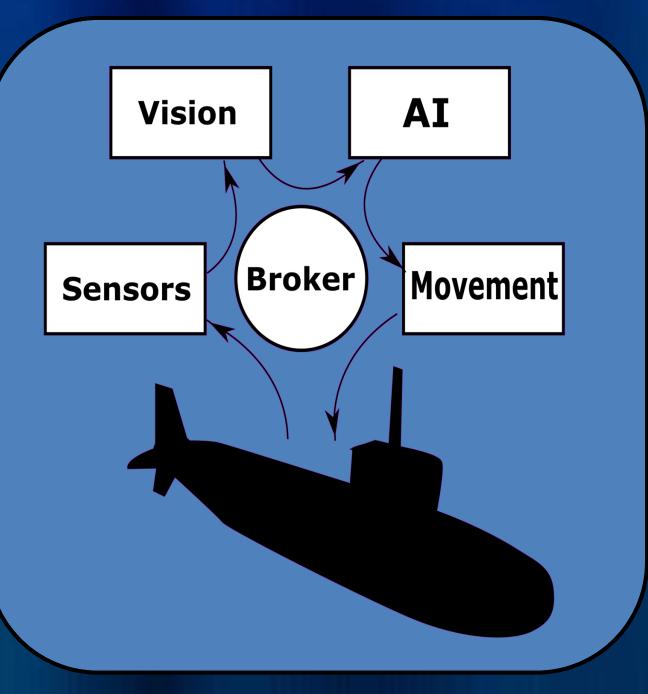
Pneumatics:

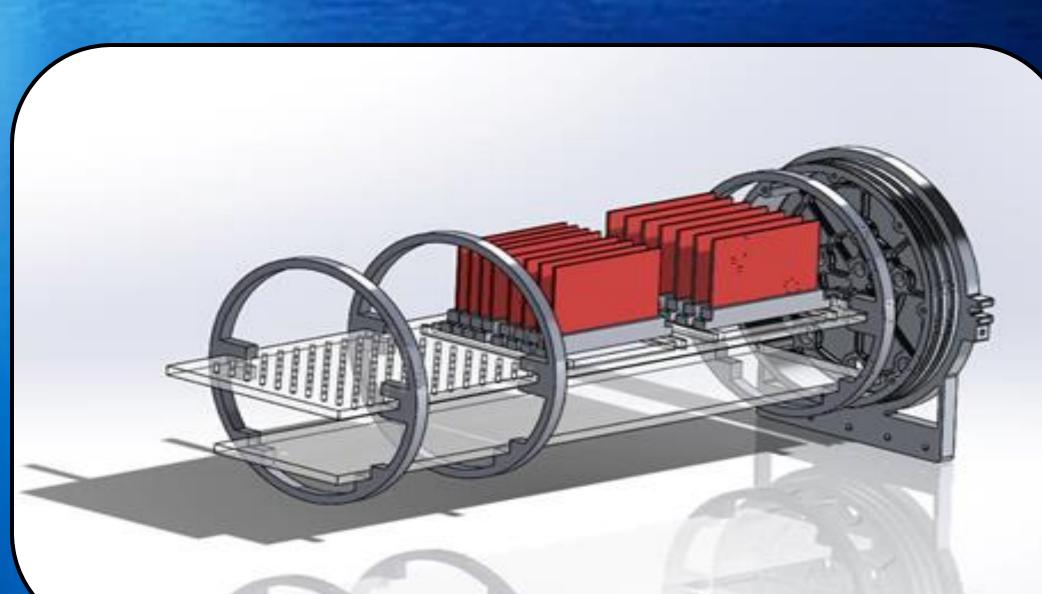
- Expanded Design
- Custom Housing



Module Architecture:

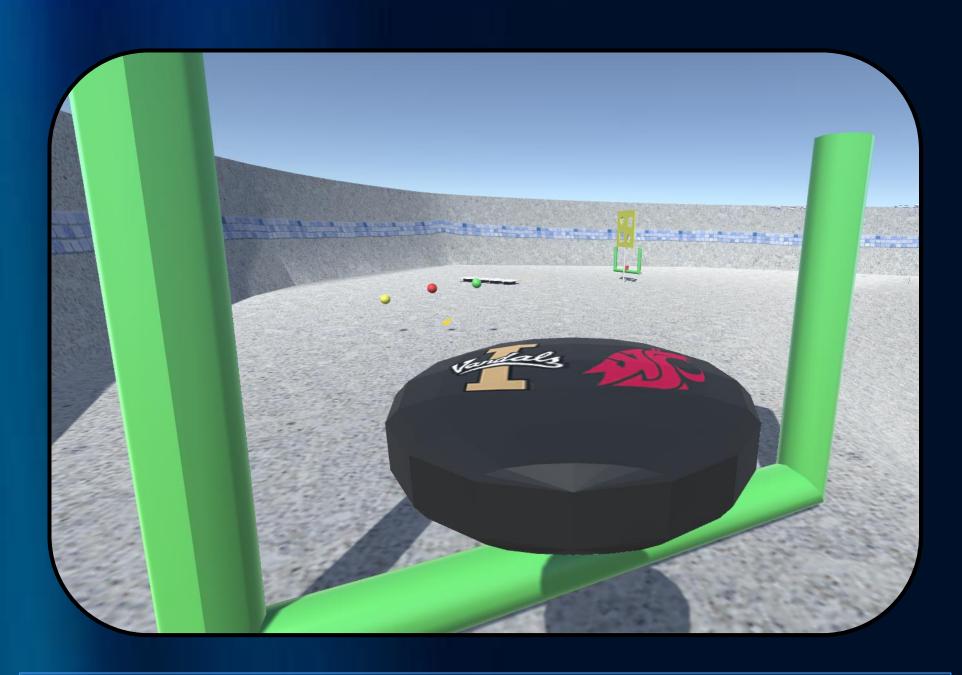
- Communication Broker
- Sensor Processing
- Computer Vision
- Autonomous Controller
- Fuzzy Logic Movement





Printed Circuit Boards:

- Streamline Edge Connector Design
- More robust and durable
- -Allows for quick part interchange



Competition Environment Simulation



Mechanical Engineering:

Cody Litzko
Chet McKinnon
Michael Moreno
Woovin Yi

Computer Science:

Craig Allen
Jeff Crocker
Tyler Jaszkowiak
Sean Shepherd

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