IGVC Robot 2020
Intelligent Ground Vehicle Competition
Outline

- What is IGVC?
- Project Approach
- Needed CS+SwE Skills
- Contact Information
What is IGVC?
What is IGVC?

- Intelligent Ground Vehicle Competition
  - 2020 Competition is in Rochester, MI on June 4-5
  - Website: http://www.igvc.org

- Overall Goal
  - Build an autonomous vehicle to traverse an outdoor obstacle course using computer vision and waypoint navigation

- Competition Sponsors

  NORTHROP GRUMMAN
  GENERAL DYNAMICS
  Land Systems
  MathWorks
2019 IGVC Example Obstacle Course
Florida Tech IGVC Team

- Currently in its fourth iteration
  - Looking to compete in the 2020 competition

Current Robot Design
Approach

- Utilize the currently remote-controlled vehicle built last year to compete in this year’s competition
- Get the vehicle competition-ready
  - Complying with all qualifying regulations
- Improve upon current methods of course traversal techniques from prior iterations
  - Obstacle detection via computer vision, GPS waypoint navigation, etc
- Establish a developer-friendly code base for software development and test for current and future vehicle iterations
Needed CSE Skills

- Software Design Methodologies
- Ability to work with GIT
- Test and Validation
- Documentation

Languages/Environment

- Linux
- ROS Robot Operating System
- Python
- C++
Looking for...

- Interest in Robotics and AI
- Some understanding of/willingness to learn Probability and Statistics
Contact Information

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