

Voice-Demanded Robot Project

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Fall 2023 - Spring 2024

High Level Requirements

- Filter audio input for easier audio transcription
- Obey direct navigational voice commands
- Use text generative AI to interpret commands that are not specified
- Navigate to specific colored targets
- Reroute navigation around obstacles identified by LiDAR
- Host website with manual joystick-style controls
- Stream live video of the robot's view to the website
- Stream live 2D point cloud generated by LiDAR to website
- Draw decision-making symbols and lines on the live video to show how the robot "thinks"
- Ability to attach a towable device for transporting supplies