Autonomous Path exploring and mapping Vehicle

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The Task

▶ Automating the motion of a car model

▶ Avoiding obstacles

▶ Creating a map of the surroundings

Components

- Collecting and Sending Ultrasonic Sensor data to the server

- AWS Server

- Car Navigation System

- Three.JS to display the map

Tech Stack

- ESP32

- Ultrasonic Sensor

- Node.JS

- AWS

- Three.JS

Challenges

- ▶ Navigating through the space

- ▶ Creating a map from the collected Data.

- ▶ Maintaining Constant connecting with the server.

Timeline

- ▶ Week 1- Acquiring the components

- ▶ Week 2- Programming the Server and getting data from the sensors

- ▶ Week 3- Visualizing the data in website

- ▶ Week 4- Integrating the Components

Thankyou