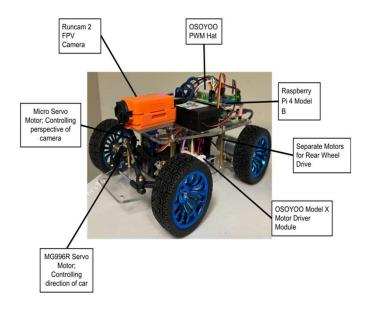


First Person View Self Driving Car

By: Adam Daniel Strub, Elliot Li, Mei Mei Castranova, and Divya Krishna Directed by: Professor Rich Martin

PROJECT OVERVIEW

Our goal was to control the cars remotely and to evaluate how controllable the cars were.



≻Robotic Car → Osoyoo Servo Steer Smart Car

➤ Computer System → Raspberry Pi 4 Model B

HARDWARE/SOFTWARE

- ➤ Camera → Runcam 2 and used it as a USB camera
- ➤ Local Area Network → Zerotier
- ➤ Micro Servo Motor so the camera has more peripheral view

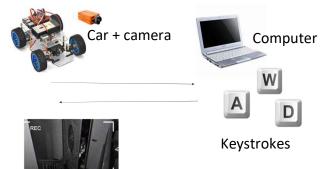


NETWORKING

UDP sockets facilitates connection between two devices and pinging. Experimented with Zerotier to create a VPN and connect from anywhere on the internet.

OPFNCV & Comero

OpenCV is a python library that allows image processing through a camera. When using the Runcam 2, there were two modes: USB memory card, and USB camera.



Video

CHALLENGES

- ➤ Downloading CV2 to the Raspberry Pi
- ➤ Switching the camera between the two different modes
- ➤Installing basic code from older to newer versions of the Raspberry Pi



Scan our QR code!

