

SWE Grand Prix

Project Overview for CS 321

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Overview

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Developing software for remote controlled race cars

- ▶ Will compete in tournament style race (2 cars at a time) during final exam block

Five (5) racing teams

- ▶ Each team provided with a race car, embedded (onboard) computer, and camera
 - > Uses Pulse Width Modulation (PWM) to control steering servo and motor
 - > Will have access during class and office hours
 - > You may wish to [purchase your own](#) (~\$50) for use outside of class
- ▶ Responsible for remotely driving car **over WiFi**
- ▶ Must include a **graphical user interface (GUI)** from the laptop **OR** integrate a **joystick** with the laptop

One (1) race management team

- ▶ Consists of 1 dedicated representative from each racing team
- ▶ Collaborates with racers to define interfaces
- ▶ Provides graphical application (web or standalone) to display live race data
- ▶ Manages and scores tournament bracket