Group Project: Planning Phase

CSE 499

Members: Andrew Woska, Daniel Maas, Imani Muhammad-Graham

GitHub: https://github.com/agwoska/cse499-portfolio

What are we building?
Self Balancing Robot (https://youtu.be/5jxOpqJ2k3U)

What are we going to control?
Balance and/or movement of the robot

What are the sensors?
Tilt Sensors
Gyroscope
Ultrasonic Sensor

What is the actuator?
DC motor

What is the feedback?
Tilt Angle

What part is hard-real time?
Angle correction

What part is soft-real time?
Sampling sensors

BOM:
- MEMS Gyroscope (GY-521 or similar)
- Tilt Sensor
- Ultrasonic Sensor
- L4R5ZI
- 2 DC motors (strong enough to hold chassis and move)
- 2 Wheels with connectors for the DC motors
- Chassis
- Various screws, spacers, and nuts