Power and Sense

For power, we first used a Li–Po 3 cell 12.6v battery for testing, but then chose to use 3 18650 Li–ion batteries for the ease of recharging and installation on the robot.

We used a l298n dual motor driver to drive the EV3 motors with Arduino Mega.

3 HC–SR04 ultrasonic sensors were used to help with driving between the lanes and the parking.

A Husky Lens camera was used to identify the obstacles (traffic signs and parking)

The TCS3200 color sensor was used to detect the blue amd orange lines on the map to know the direction of the round (clockwise or counter–clockwise) and to count the laps it has finished.