Journal Report 17
2/10/20-2/14/20
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Daily Log

Monday February 10

Wrote some code to wireless control the car and log data by changing our existing code that uses wires directly to the car's steering servo and ESC.

Wednesday February 12

With the time left over after presentations, tested some of the code. Since it takes time to transmit the string with two numbers over the Xbees, one of the problems we think we will see is the engine will have bursts of movement so it will look like it stutters. Hari got the wireless control for steering to work today.

Friday February 14

Got the motor to move. We can now fully control the car using the breadboard remote, but the car stutters as we predicted, and it can't drive at low speeds. It either does not move or moves really fast, and that is a problem for next week. We also have to organize the wires on the car.

Timeline

Date	Goal	Met
Today minus 2 weeks	Have our data logging program work reliably	Yes
Today minus 1 week	Make the collection of data wireless using the XBees	Yes
Today	Control the car wirelessly using our controller	Yes
Today plus 1 week	Control the car wirelessly using our controller	Yes
Today plus 2 weeks	Refine wireless gathering method, and have a reliable system to gather data	No

Reflection

We met another big milestone this week by creating our own radio controller. By having our own controller, we can record the exact signal that we output as we send it to the car. We could not do this with the remote that came from the car. The next step is to refine the wireless control method to make it more reliable, and then incorporate it with the lidar capturing code to create a training data gathering solution. As the end of the year approaches, in order to make headway with the neural network, we will omit camera functionality. We will come back and attempt to incorporate it given time.