

 PROJECT #1 PROPOSAL

**Name(s): Tanner Dunn**

**Project: Self-driving robotic car**

**Part A: Brainstorming...**

* **describe your project idea(s)**

I would like to program a robotic car to drive itself and navigate a path. I would also set it up so you use a smartphone to plan your schedule (where to go and when), and it will send reminders back to your smartphone when it’s almost time to leave.

* **List your learning objectives**

I would have to learn the coding language to be able to program the car. I would also need to learn more about how to set up Bluetooth to send notifications to a smartphone from Raspberry Pi software.

* **State the goal(s) of your project**

My goal is to make the robot navigate a course, avoiding objects in its path and sensing any potential dangers in its path. I would also like it to send reminders to your smartphone.

**Part B: Electronic Resources…List active hyperlinks to any relevant online resources**

<https://read.acloud.guru/how-i-built-an-autonomous-car-to-drive-awareness-for-women-who-code-bec91f94da91?gi=aee0d06f968b>

<https://www.intorobotics.com/the-best-raspberry-pi-3-advanced-and-starter-kits-for-robotics/>

<https://www.dexterindustries.com/howto/walk-through-and-tutorial-on-how-to-connect-the-raspberry-pi-and-mobile-phone-connect-raspberry-pi-mobiletablet/>

<https://www.hackster.io/theonlystephensimon/run-raspberry-pi-on-smart-phone-31b414>

**Part C: Planning…**

* **Materials list [NOTE: if we do not have it, include link to purchase from Amazon.ca]**

Raspberry Pi, 360Fly or another camera, Distance Sensor, Computer, Raspberry Pi Compatible Robot (Not sure if any in makerspace so I put links to some below.)

[https://www.amazon.com/CoolWind-AlphaBot-Building-Accessory-Raspberry/dp/B01NACL7CY/ref=as\_li\_ss\_tl?ie=UTF8&qid=1493799037&sr=8-6&keywords=raspberry+pi+3+robot&linkCode=sl1&tag=intorobo-20&linkId=8cd65348919aefc205e43eae2055e9c5](https://www.amazon.com/CoolWind-AlphaBot-Building-Accessory-Raspberry/dp/B01NACL7CY/ref%3Das_li_ss_tl?ie=UTF8&qid=1493799037&sr=8-6&keywords=raspberry+pi+3+robot&linkCode=sl1&tag=intorobo-20&linkId=8cd65348919aefc205e43eae2055e9c5)

[https://www.amazon.ca/Kuman-Ultrasonic-Measuring-Duemilanove-Raspberry/dp/B01C3YNRRS/ref=sr\_1\_1/138-1412521-6426627?ie=UTF8&qid=1519324888&sr=8-1&keywords=raspberry+pi+distance+sensor](https://www.amazon.ca/Kuman-Ultrasonic-Measuring-Duemilanove-Raspberry/dp/B01C3YNRRS/ref%3Dsr_1_1/138-1412521-6426627?ie=UTF8&qid=1519324888&sr=8-1&keywords=raspberry+pi+distance+sensor)

[https://www.amazon.com/Dexter-Industries-GoPiGo-Robot-Raspberry/dp/B00NYB3J0A/ref=as\_li\_ss\_tl?ie=UTF8&qid=1493799037&sr=8-4&keywords=raspberry+pi+3+robot&linkCode=sl1&tag=intorobo-20&linkId=58ea7d2d2c6d342f4d51a0a8cdbf7219](https://www.amazon.com/Dexter-Industries-GoPiGo-Robot-Raspberry/dp/B00NYB3J0A/ref%3Das_li_ss_tl?ie=UTF8&qid=1493799037&sr=8-4&keywords=raspberry+pi+3+robot&linkCode=sl1&tag=intorobo-20&linkId=58ea7d2d2c6d342f4d51a0a8cdbf7219)

[https://www.amazon.com/SunFounder-Raspberry-Following-Ultrasonic-Electronic/dp/B06XYZRBNJ/ref=as\_li\_ss\_tl?ie=UTF8&qid=1493188659&sr=8-6&keywords=motor+driver&linkCode=sl1&tag=intorobo-20&linkId=79a1b59c8266773c28f3890763c73bc8](https://www.amazon.com/SunFounder-Raspberry-Following-Ultrasonic-Electronic/dp/B06XYZRBNJ/ref%3Das_li_ss_tl?ie=UTF8&qid=1493188659&sr=8-6&keywords=motor+driver&linkCode=sl1&tag=intorobo-20&linkId=79a1b59c8266773c28f3890763c73bc8)

* **Designs…Include any sketches/pictures and/or links to videos**

<https://www.pololu.com/blog/233/pibot-b-mobile-robot-with-a-raspberry-pi>

