Submission Date	2017-09-18
Project Name	RaspiRover
Student Name	Lawrence Puig
Project website	n01033296.github.io/RaspiRover
My project will	be a rover that is created with a Raspberry pi. This allows the user to access the Raspberry pi database that has built in commands that can be triggered using a bluetooth/wifi device. By having a portable rover, it can access small narrow areas. Inspired by NASA's rovers.
The database will store	Pre-registered commands that can be activated using the mobile device via bluetooth/wifi.
The mobile device functionality will include	the software to access the pre-registered commands on the database with simple GUI settings allowing for easy operations. This may include; autopilot, a pattern movement mode, and a manual state to allow the controller to move the rover freely.
I will be collaborating with the following company/department	N/A
My group in the winter semester will include	Alenric Apostol and Christopher Albarillo
50 word problem statement	I believe the most difficult part of this project is building the rover itself and creating the pre-registered codes that will be triggered by the Bluetooth/wifi device. But also the preparations of the project which is figuring out where to get the components to build this project with a proper budget.
100 words of background	This is a prototype project that is inspired by NASA's own rover. It can be used for research purposes due to its small body and mobile features. In the future I hope to create an even smaller type rover that will be just as mobile but will also have new features such as; gathering raw materials and even being full automatic. This prototype will have three different on settings; automatic, manual and a pattern mode for testing. It will run off of a Raspberry Pi data base that includes pre-registered codes and will be activated via Bluetooth/wifi from a mobile device software.
Current product APA citation	Spirit Rover - Learn Raspberry Pi and Arduino the fun way! - Retrieved From, https://www.kickstarter.com/projects/plumgeek/spirit-rover-learn-raspberry-pi-and-arduino-the-fu
Existing research IEEE paper APA citation	Halfway to Mars [next generation planetary rover] - Published By IEEE. Retrieved from, http://ieeexplore.ieee.org/document/1604839/
Brief description of planned purchases	Planned Purchases and components; Raspberry pi 3, Rover chasis kit, four 3D printed wheels, including micro continuous rotation servos or micro servo wheels. My estimated budget will be around $100-$200.
Solution description	This project proposal is my plan for creating my own version of a rover with the raspberry Pi that I will be able to integrate my own features and functions for research purposes, for myself and for others.