To begin our design, we need to:

* Create a schematic design by May 15/2017 – Ayomide
* Choose the material needed to create our chassis by May 17/2017- Badraddin
* Get the raspberry pi running by May 18/2017 - Badraddin
* Gather materials needed (raspberry pi, materials needed for volt regulator, motors, wheels,) by May 19/2017 - Together
* Create two rectangular platforms with the material of choice Size: cm May 23/2017 – Ayomide
* Create the volt regulator by May 25/2017 -Ayomide
* Start drilling and put together the whole rover by putting platforms and wheels together, a battery holder and drill the raspberry pi onto the platforms by June 2/2017 - Together
* Finish Code by June 2/2017 - Badraddin
* Include the webcam and wireless control the rover by June 6/2017 – Together

**Creating A Schematic Design & Choosing the Material**

For us to create a design, we needed to consider the strengths and weakness of certain designs. At first, we were going to use plexiglass but we later found out that it would consequent in bending due to the material not being strong enough to hold everything together, the bending would be hard to deal with so we went with stronger material and we ultimately decided to use wood. The design we first thought of was flawed, we were going to use two levels and run it on 4 motors, we later found out that the it wouldn’t be stable and it would be considerably more difficult to run 4 motors. We then decided to use 2 motors and have one level. We used two platforms, one for the battery, raspberry pi, and the breadboard, the other platform was used for passive wheels; it needed to be elevated to prevent slanting. In our design, we created a batter holder using 3 brackets and plexiglass to make sure it didn’t move while the rover was running, we used a raspberry pi holder which was 3D printed and drilled it onto the bigger wooden platform.

**Getting the Raspberry Pi Running**

The whole summative revolved around using the raspberry pi, we decided we need to complete this task before many other things because it was important. Using the instructions on the raspberry pi site, we installed noobs on the raspberry pi to download Raspbian. We decided to use noobs because it was easier because it didn’t require network access or special imaging software to install Raspbian.

**Creating Volt Regulator**

A volt regulator is needed to step down a 12v battery to a 5v battery, we will be creating this using the schematics that we researched.

**Assembling the Rover together**

The platform needs to be drilled to screw the motors with machine bolt, so we marked the holes that needed to be drilled in the rear end of the bigger wooden platform, we then drilled it and screwed the machine bolt into a bracket which was screwed to the motor and wheel. After that we used the smaller platform to drill into it to use machine bolts to connect the passive wheels to it, the small platform was then connected the larger one