**Tasks**

**Completed:**

**Research papers**

Study of the research papers will help to understand the concepts of different hardware’s and software coding used in building the robots for example:- IOT, ML, Arduino based papers.

**3D model**

We got our 3D model printed from a local vendor with PLA filament, design is created according to the space required by the hardware so that everything can be fitted into the design.

**Collection of Hardware’s.**

Hardware are collected from different markets and some of the hardware materials are collected from online sites.

**To be Done:**

**Assembling and calibrating hardware.**

Assembling the hardwares collected into the 3D model, and connecting the different softwares with jumper wires.

Calibrating the hardware if it donot work properly.

**Arduino coding**

Working of the model will be dependent on the coding of arduino as it will be the heart of the vaccum robot.

**Android app**

Creating Android app so that the model will be operated with the help of mobile phones

It can be turned off and on with the help of mobile phone even if we are away from the model.

**Machine Learning**

Machine learning model will be used that will help in the working of the vacuum cleaner.

It will help the sensors to detect the big objects and change its position accordingly.

**IOT**

Making the robot controlled by app through the internet.

**Testing**

After all the procedures, coding, installations will be done , the robot will be tested first before presenting it to the market.