

PROJECT NAME: Home Automation System

TEAM NAME: The_Pulse

TEAM ID: 225

TEAM MEMBERS:

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PROJECT DESCRIPTION/OBJECTIVE:

We are aiming at creating a basic model of home automation system using Arduino and an Android based application (developed by us). We intend to cut down the cost of installing Home Automation and encouraging tech enthusiasts to make it a DIY project.

Home Automation is slowly becoming popular as it cuts down the energy based on the requirements, and can also be used for alarms, such as in case of gas leakage or burglar intrusion.

We are planning to :

- Make an android based app for switching of devices like lights and fans.
- Installing a gas and smoke detector which will alert the user via a phone call on any incident of gas leakage or a fire.

- If the above objectives are completed successfully within the time, then we also are planning to make a burglar alarm with the help of sensors attached to the gate of the house, which will ring an alarm when the gate is opened and the owner is not in the house, and will warn the user via phone call. The owner can switch the alarm system off when not required via the android app.

PLAN OF ACTION:

- WEEK 1: Buying/ordering of all components and making a circuit design.
- WEEK 2: Assembling of components electrically .
- WEEK 3: Coding of Arduino and debugging.
- WEEK 4: Developing android app
- WEEK 5: Testing and debugging.

ESTIMATED COST: 3500-4000 rupees.

Components:

- Arduino UNO R3: Rs. 1600
- GSM Shield sim800: Rs. 900
- 7805 IC: Rs. 30
- 12V Adapter: Rs. 400
- Bluetooth Module HC - 05: Rs. 300
- Butane Gas Sensor MQ-2: Rs. 190
- PCB: Rs. 30
- Jumper Wire Set: Rs. 90

● LED for testing: Rs. 60