

Voice Operating system with Floor Cleaning

This project presents the design and implementation of a voice-controlled vacuum cleaner using an Arduino microcontroller and Bluetooth. The primary objective is to create a wireless and automated vacuum cleaner that can be controlled remotely through a smartphone or other Bluetooth-enabled devices. The system leverages Bluetooth communication to receive commands from the user, which are then processed by the Arduino to control the vacuum cleaner's functionality.

The proposed system consists of three main components: the Arduino microcontroller, a Bluetooth module (such as HC-05), and the vacuum cleaner's motor. The user sends commands via a smartphone application, which communicates wirelessly with the Bluetooth module. The Arduino microcontroller interprets these commands to control various operations of the vacuum cleaner, such as turning the device on or off or changing the direction of movement.

This wireless vacuum cleaner system offers convenience, energy efficiency, and ease of use. The use of Bluetooth technology enables users to control the vacuum cleaner remotely, reducing physical effort and allowing for more flexible operation. It is ideal for both residential and commercial use, providing a simple yet innovative solution to automate cleaning tasks.

In conclusion, the Bluetooth-controlled vacuum cleaner using Arduino represents a step forward in integrating wireless technology with household automation, offering improved convenience, energy efficiency, and a modern approach to everyday cleaning.

The major features of this project are:

1. Design a voice controlled vacuum Robot to clean the floor.
2. Wireless controlling of Robot using Bluetooth technology.

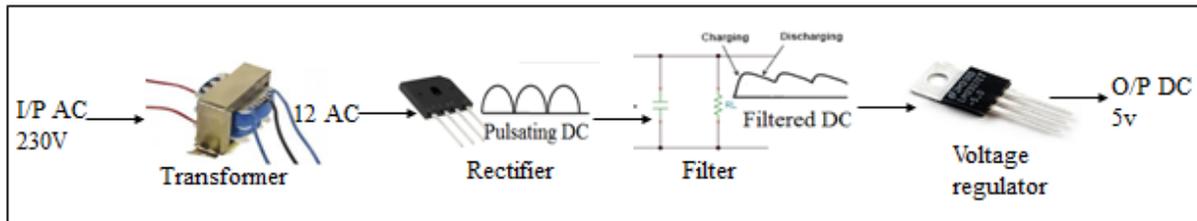
The major building blocks of this project are:

1. Battery power.
2. Arduino board.
3. DC motor with driver.
4. Bluetooth module.
5. Relay.
6. Vacuum.
7. LED indication

Software's used:

1. Arduino IDE for compiling and dumping code into Microcontroller
2. Express SCH for Circuit design.

Regulated Power Supply:



Block diagram:

