#### INTRODUCTION

- Everyday people face the burden of manually doing things such as switching ON/OFF TVs, lights, ACs and
- But it would be so much easier if we just wave our hand
- · Objective was to design a prototype which will create a link between the appliance and user.

### **Home Automation** using Hand Gestures



By:- Ashutosh Gajankush. Chintan Patel. Mohit Malhotra. Vivek Patel.

#### HARDWARE REQUIREMENTS

- Raspberry Pi 2.
  Arduino UNO.
- Three axis Accelerometer ADXL345.
  NRF24L01 trans receivers.
- · Relay switch.
- Light Bulb(to show the output)
- Connecting Wires.





#### SOFTWARE

- · Raspberry Pi 2.
- Arduino ÚNO.
- Three axis Accelerometer ADXL345.
- NRF24LO1 trans receivers.
- Relay switch.
- Light Bulb(to show the output)
- Connecting Wires.









By:- Ashutosh Gajankush. Chintan Patel. Mohit Malhotra. Vivek Patel.

# Table of Contents

- Introduction.
- Hardware requirements.
- Hardware connections.
- Programming.
- Django app.
- Demonstration.

### INTRODUCTION

- Everyday people face the burden of manually doing things such as switching ON/OFF TVs, lights, ACs and many more.
- But it would be so much easier if we just wave our hand in the air and boom!
- Objective was to design a prototype which will create a link between the appliance and user.

### HARDWARE REQUIREMENTS

- Raspberry Pi 2.
- Arduino UNO.
- Three axis Accelerometer ADXL345.
- NRF24LO1 trans receivers.
- Relay switch.
- Light Bulb(to show the output)
- Connecting Wires.





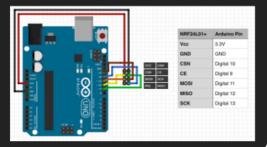
# **HARDWARE CONNECTIONS**

• Arduino UNO:

#### ADXL 345 connection:

Arduino	ADXL 345
5 V	5 V
GND	GND
GND	SDO
SCL	SCL
SDA	SDA

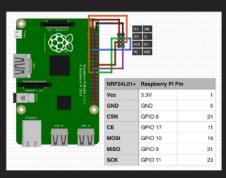
#### NRF24OL1 connection:



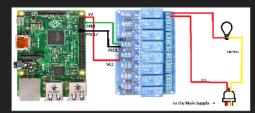
# **HARDWARE CONNECTIONS**

• Raspberry Pi:

NRF24OL1 connection:



Relay connections:



### **SOFTWARE**

- Raspberry Pi 2.
- Arduino UNO.
- Three axis Accelerometer ADXL345.
- NRF24LO1 trans receivers.
- Relay switch.
- Light Bulb(to show the output)
- Connecting Wires.



