



# Simple Door Locking System

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# Introduction

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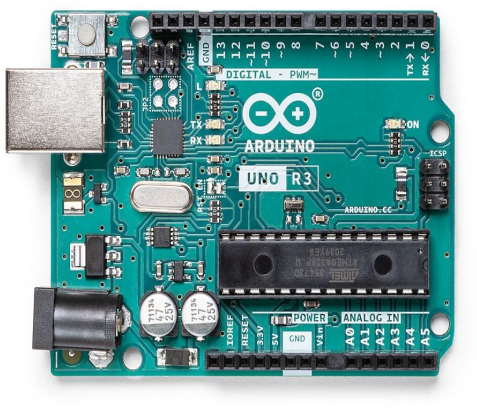
On this project, I will be going to make a simple door lock using an Arduino UNO. This door lock is very easy to make & minimum components have been used for it.

# Why I choose this project

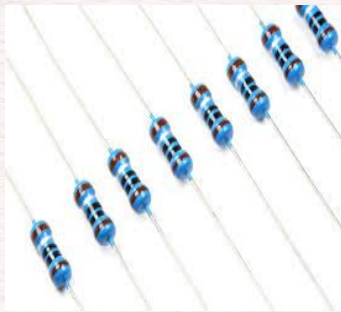


# REQUIRED EQUIPMENTS :





ARDUINO UNO



220 Resistors



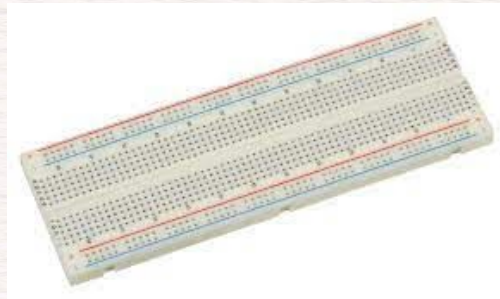
pwm servo motor



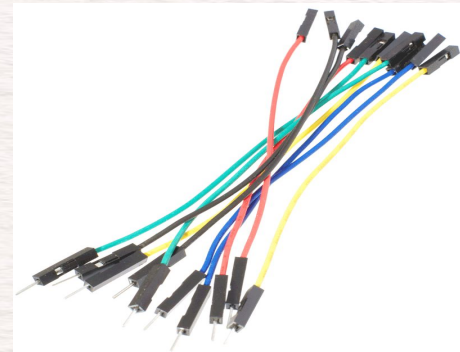
LED



SPEAKER



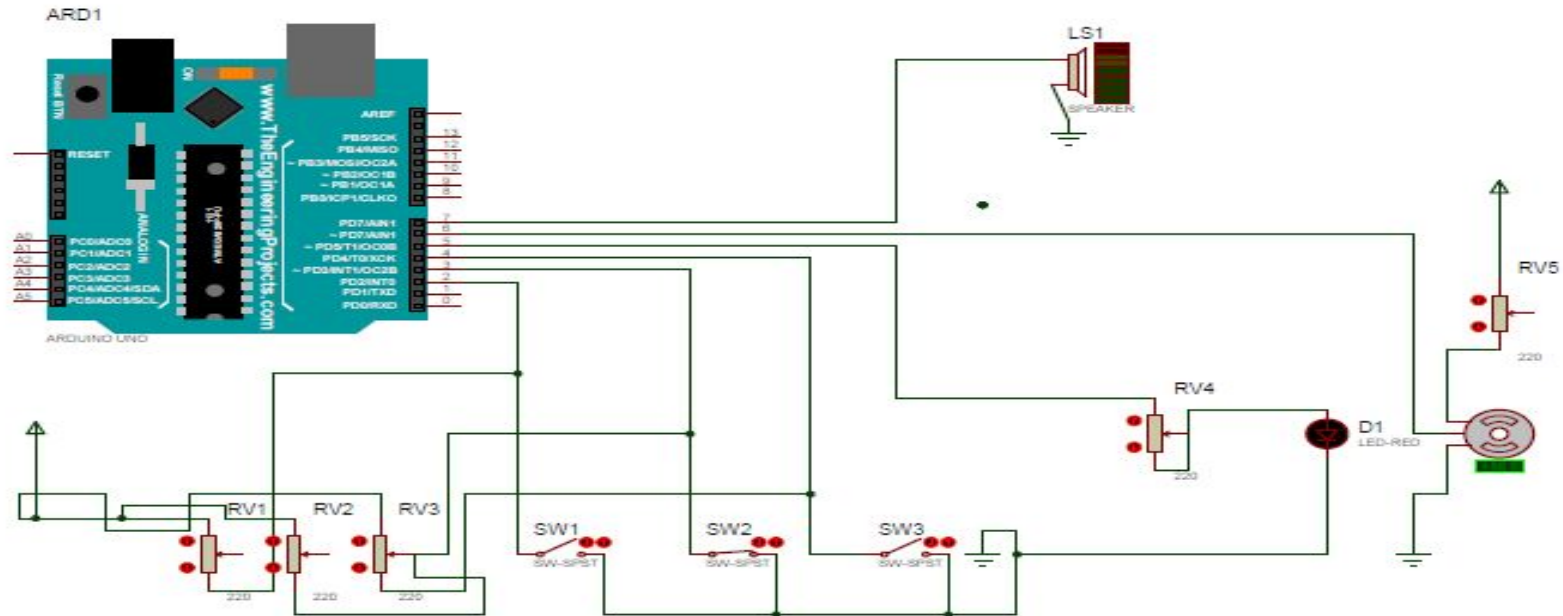
BREADBOARD



JUMPER WIRES



# SCHEMATICS USING PROTEUS :



# SKETCH FOR ARDUINO

```

int first;
int second;
int third;
#include <Servo.h>
Servo myservo;
int pos=0;
void setup() {
  // put your setup code here, to run once:
  pinMode(2, INPUT);
  pinMode(3, INPUT);
  pinMode(4, INPUT);
  pinMode(5, OUTPUT);
  myservo.attach(6);
  pinMode(7, OUTPUT);
}

void loop() {
  // put your main code here, to run repeatedly:

  first = digitalRead(2);
  second = digitalRead(3);
  third = digitalRead(4);

```

```

//3 correct pin
if (first == HIGH && second == LOW && third == HIGH){
  digitalWrite(5, LOW);
  for(pos = 180; pos>=0; pos-=5) // open door
  myservo.write(pos);
  tone( 7, 2000, 500);
  tone( 7, 1000, 500);
  delay(2000);
}
//1
else if (first == HIGH && second == HIGH && third == HIGH){
  digitalWrite(5, HIGH);
  for(pos = 0; pos <= 180; pos +=5) // open the door
  myservo.write(pos);
  delay(2000);
}
//2
else if (first == HIGH && second == HIGH && third == LOW){
  digitalWrite(5, HIGH);
  for(pos = 0; pos <= 180; pos +=5) // open the door
  myservo.write(pos);
  delay(2000);
}
//3

```



```

else if (first == HIGH && second == LOW && third == LOW){
    digitalWrite(5,HIGH);
    for(pos = 0; pos <= 180; pos +=5)
myservo.write(pos);
delay(2000);
}
//5
else if (first == LOW && second == HIGH && third == HIGH){
    digitalWrite(5,HIGH);
    for(pos = 0; pos <= 180; pos +=5)
myservo.write(pos);
delay(2000);
}
//6
else if (first == LOW && second == LOW && third == HIGH){
    digitalWrite(5,HIGH);
    for(pos = 0; pos <= 180; pos +=5)
myservo.write(pos);
delay(2000);
}
//7
else if (first == LOW && second == LOW && third == HIGH){
    digitalWrite(5,HIGH);
    for(pos = 0; pos <= 180; pos +=5) |

```

```

//7
else if (first == LOW && second == LOW && third == HIGH){
    digitalWrite(5,HIGH);
    for(pos = 0; pos <= 180; pos +=5)
myservo.write(pos);
delay(2000);
}
//8
else if (first == HIGH && second == LOW && third == LOW){
    digitalWrite(5,HIGH);
    for(pos = 0; pos <= 180; pos +=5) // open the door
myservo.write(pos);
delay(2000);
}
}

```

Done compiling.

Using library Servo at version 1.1.8 in folder: C:\Users\Lord Enigma\Documents\Arduino\libraries\Servo  
 C:\Program Files\WindowsApps\ArduinoLLC.ArduinoIDE\_1.8.49.0\_x86\_\_mdqgnx93nqsketch uses 3504 bytes (10%) of program storage space. Maximum is 32256 bytes.

# HOW THIS PROJECT WORKS

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On this project, an Arduino UNO will be connected with a motor, speaker, LED, switches and some resistors. Switches will work as an input. If the user inputted the wrong pin, then Arduino will generate a specific frequency tone that will alert the owner. The door will only go to open if the user inputted the correct pin

THANK YOU

