

## ASSIGNMENT 1

### HOME AUTOMATION-AUTOMATIC DOOR OPENING SYSTEM

#### CODE:

```
#include <Servo.h>
int input = 7;
int state = LOW;
int value = 0;
Servo servomotor;
int position = 0;
void setup()
{
  pinMode(input, INPUT);
  servomotor.attach(8);
  Serial.begin(9600);
}
void loop()
{
  value = digitalRead(input);
  if (value == HIGH)
  {
    if (state == LOW)
    {
      Serial.println("Motion detected!");
      for (position = 0; position <= 180; position += 1)
      {
        servomotor.write(position);
        delay(30);
      }
      state = HIGH;
    }
  }
  else
  {
    if (state == HIGH)
    {
      Serial.println("Motion ended!");
      for (position = 180; position >= 0; position -= 1)
      {
        servomotor.write(position);
        delay(30);
      }
    }
  }
}
```

```
        state = LOW;
    }
}
}
```