```
#include <Keypad.h>
#include <Servo.h>
#include <LiquidCrystal.h>
#include <dht.h>


Servo rightServo;
dht d;

int alarm =35;
int fan =36;
int button=31;
int rightServoPin = 11;
int lirPin = 13;
int rirPin = 12;
int lir;
int rir;
int sensorread;
int T;
int ps = A15;
int led1 =2;
int led2 =3;
int BUZZER_PIN = 32;
int LED_PIN = 39;
int redled = 38;
int correct;
const int ROWS = 4;
const int COLS = 4;
char keys[ROWS][COLS] =
{
    {'1', '2', '3', 'A'},
    {'4', '5', '6', 'B'},
    {'7', '8', '9', 'C'},
    {'*', '0', '#', 'D'}
};
byte rowPins[ROWS] = {47,46,45,44};
byte colPins[COLS] = {43,42,41,40};
Keypad keypad = Keypad(makeKeymap(keys), rowPins, colPins, ROWS, COLS);


LiquidCrystal lcd(52,53,50,49,51,48);
const String PASSWORD = "AC56";
static String input;
bool accessGranted = false;
```

```
void setup()
{
    lcd.begin(16, 2);
    pinMode(BUZZER_PIN, OUTPUT);pinMode(LED_PIN, OUTPUT);
    pinMode(redled, OUTPUT);
    rightServo.attach(rightServoPin);
    pinMode(lirPin, INPUT);
    pinMode(rirPin, INPUT);pinMode(alarm, OUTPUT);
    pinMode(fan, OUTPUT);
    pinMode(button, INPUT);
    pinMode(led1, OUTPUT);
    pinMode(led2, OUTPUT);
    pinMode(ps, INPUT);
    Serial.begin(9600);
}


void loop()
{
  d.read11(A14);
  lir = digitalRead(lirPin);
  rir = digitalRead(rirPin);
  if (rir == HIGH || lir == HIGH )
  {
    rightServo.write(85);
  }
  if (rir == LOW)
  {
    rightServo.write(0);
  }
  if (lir == LOW)
  {
    rightServo.write(180);
  }

  char key = keypad.getKey();
  if (key == '#'||key=='*')
  {
    correct=5;
  }
  if(correct !=1)
  {
    if (key != NO_KEY)
    {
      correct=2;
```

```
  digitalWrite(led1,LOW);
  digitalWrite(led2,LOW);
  digitalWrite(alarm,LOW);
  digitalWrite(fan,LOW);
  if (key == '#'||key=='*')
  {
    lcd.clear();input = "";
    correct=5;
  }
  else
  {
    input += key;
    lcd.setCursor(input.length()+5,1);
    lcd.print(key);
    if (input.length() == PASSWORD.length())
    {
      if (input == PASSWORD)
      {
        lcd.clear();
        lcd.setCursor(0, 0);
        lcd.print("Welcome Home");
        digitalWrite(LED_PIN, HIGH);
        delay(2000);
        digitalWrite(LED_PIN, LOW);
        input = "";
        lcd.clear();
        correct=1;
      }
      else
      {
        lcd.clear();
        lcd.print("Wrong password");
        digitalWrite(BUZZER_PIN, HIGH);
        digitalWrite(redled, HIGH);
        delay(1000);
        digitalWrite(BUZZER_PIN, LOW);
        delay(2000);
        digitalWrite(redled, LOW);
        input = "";
        lcd.clear();
        correct=5;
      }
    }
  }
}
```

```
}
if( correct != 1&& correct != 2)
{
  lcd.clear();
  lcd.print("Enter password:");
}
if(correct==1)
{
  T = d.temperature;
  lcd.setCursor(0, 1);
  lcd.print("Temp=");
  lcd.print(T);
  lcd.print("C");
  Serial.println(T);
  if (T<30)
  {
    digitalWrite(fan,LOW);
  }
  if (T>=30)
  {
    digitalWrite(fan,HIGH);
  }
  if (T>35)
  {
    digitalWrite(alarm,HIGH);
  }
  int bval=digitalRead(button);
  if (bval==HIGH)
  {
    digitalWrite(alarm,LOW);
  }
  sensorread = analogRead(ps);
  int mapout= map(sensorread, 0,1023, 0,255);
  int ledlevel= map(sensorread, 0,1023, 0,100);
  analogWrite(led1, mapout);
  analogWrite(led2, mapout);
  Serial.print(sensorread);
  Serial.print("mega");
  Serial.println(mapout);
  lcd.setCursor(0, 0);
  lcd.print("led level=");
  lcd.print(ledlevel);
  lcd.print("%");
  delay(500);
}
```

```
}
```