

CODES

```
#include <LiquidCrystal.h>
```

```
const int LM35 = A0;  
const int motor = 13;  
const int LedRed = 12;  
const int LedGreen = 11;
```

```
LiquidCrystal lcd(2, 3, 4, 5, 6, 7);  
void setup() {  
  Serial.begin(9600);  
  lcd.begin(16, 2);  
  lcd.print("Automated Plant");  
  lcd.setCursor(0,1);  
  lcd.print("Watering System!");  
  pinMode(motor, OUTPUT);  
  pinMode(LedRed, OUTPUT);  
  pinMode(LedGreen, OUTPUT);  
  delay(2000);  
  lcd.clear();  
  lcd.print("Temp= ");  
  lcd.setCursor(0,1);  
  lcd.print("WaterPump= ");  
}
```

```
void loop() {
```

```
  int value = analogRead(LM35);
```

```
  float Temperature = value * 500.0 / 1023.0;
```

```
  lcd.setCursor(6,0);  
  lcd.print(Temperature);
```

```
  lcd.setCursor(11,1);
```

```
  if (Temperature > 50){  
    digitalWrite(motor, HIGH);  
    digitalWrite(LedRed, HIGH);  
    digitalWrite(LedGreen, LOW);  
    lcd.print("ON ");  
  }  
  else {  
    digitalWrite(motor, LOW);  
    digitalWrite(LedRed, LOW);
```

```
    digitalWrite(LedGreen, HIGH);  
    lcd.print("OFF");  
}  
  
    delay(1000);  
}
```