

ASSIGNMENT-1

```
#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);
}
```