

```
#include <LiquidCrystal.h> // this is missing on instructables
```

```
int sensor_temp = A1;  
int value_temp;  
int sensor_light = A2;  
int value_light;  
int sensor_water = A0;  
int value_water;  
int status;  
LiquidCrystal lcd(12, 11, 5, 4, 3, 2);  
int backLight = 13;
```

```
void setup() {  
  Serial.begin(9600);  
  lcd.begin(16, 2);  
  pinMode (8, OUTPUT); //red led - temp  
  pinMode (7, OUTPUT); //yellow led - light  
  pinMode (9, OUTPUT); //blue led - water  
  pinMode (6, OUTPUT); //green led - overall health  
  pinMode(backLight, OUTPUT);  
  digitalWrite(backLight, HIGH);  
  
}
```

```
void loop() {  
  status=0;  
  value_temp = analogRead(sensor_temp);  
  Serial.print("temperature");  
  Serial.println( value_temp );  
  value_light = analogRead(sensor_light);  
  Serial.print("light");  
  Serial.println( value_light );  
  value_water = analogRead(sensor_water);  
  Serial.print("water");  
  Serial.println( value_water );
```

```
  lcd.setCursor(0, 0);  
  lcd.print("SUN:");  
  lcd.print(value_light);  
  lcd.print(" TEMP:");  
  lcd.print(value_temp);  
  lcd.setCursor(0, 1);  
  lcd.print("WATER:");  
  lcd.print(value_water);
```

```
  delay(2000); //added delay here
```

```
if (value_temp < 290){
  digitalWrite (8, HIGH); // plant too cold - red led on
  status=1;
}else{
  digitalWrite (8, LOW); // normal temp - red led off
}

if (value_light < 300) {
  digitalWrite (7, HIGH); // not enough light - yellow led on
  status=1;
}else{
  digitalWrite (7, LOW); // enough light - yellow led off
}

if (value_water < 300) {
  digitalWrite (9, HIGH); // plant thirsty - blue led on
  status=1;
}else{
  digitalWrite (9, LOW); // soil is moist - blue led off
}

if(status==0) {
  digitalWrite (6, HIGH);
  delay(300);          // wait for a second
  digitalWrite(6, LOW); // turn the LED off by making the voltage LOW
  delay(300);          // wait for a second);
}else{
  digitalWrite (6, LOW);
}

}
```