```
// include the library code:
#include <LiquidCrystal.h>

//variable for moisture sensor
const int sensoronepin = A0;
const int sensortwopin = A1;
const int sensoronePower = 6;
const int sensortwoPower = 7;
const int pumppin = 13;

// variable for sensor reading
int sensorOne;
int sensorTwo;

// initialize the library by associating any needed LCD interface pin
// with the arduino pin number it is connected to
const int rs = 12, en = 11, d4 = 5, d5 = 4, d6 = 3, d7 = 2;
LiquidCrystal lcd(rs, en, d4, d5, d6, d7);

// "wet" and "dry" thresholds - these require calibration
int wet = 380;
int dry = 500;

void setup() {
 // set pin as outputs
 pinMode(sensoronePower, OUTPUT);
 pinMode(sensortwoPower, OUTPUT);
 pinMode(pumppin,OUTPUT);
  // set up the LCD's number of columns and rows:
 lcd.begin(16, 2);

 //initialize serial communication
 Serial.begin(9600);
}

void loop() {
 // power on sensor and wait briefly
 digitalWrite(sensoronePower, HIGH);
 digitalWrite(sensortwoPower, HIGH);
  sensorOne = analogRead(sensoronepin);
 sensorTwo = analogRead(sensortwopin);
 Serial.print("Sensor 1: ");
```

```
 Serial.println(sensorOne);
 Serial.print("Sensor 2: ");
 Serial.println(sensorTwo);
 delay(5000);
 if(sensorOne > dry){
   digitalWrite(pumppin,HIGH);
   lcd.setCursor(0, 1);
   lcd.print("Watering");
 }
 if(sensorOne < wet){
   digitalWrite(pumppin,LOW);
   lcd.setCursor(0, 1);
   lcd.print("Complete");
 }

 if(sensorTwo > dry){
   digitalWrite(pumppin,LOW);
   lcd.setCursor(0, 1);
   lcd.print("Tank Empty");
 }
}
```