

Experiment 6: Develop a program to classify dry and wet waste with the moisture sensor.

Pin Connections:

Component	ESP32 Pin	<i>Arduino UNO Pin</i>
Moisture Sensor A0	GPIO 32	<i>A0</i>

Code for Arduino UNO:

```
#define MOISTURE_SENSOR_PIN 34      // Use A0 for Arduino Uno
void setup() {
    Serial.begin(115200);
    delay(1000);
    Serial.println("Moisture-Based Waste Classification
                  Started...");
}
void loop() {
    int moistureValue = analogRead(MOISTURE_SENSOR_PIN);
    Serial.print("Moisture Sensor Value: ");
    Serial.println(moistureValue);
    if (moistureValue > 2000) {
        Serial.println("Waste Type: DRY");
    } else {
        Serial.println("Waste Type: WET");
    }
    Serial.println("-----");
    delay(2000);          // Delay for readability
}
```