// Define constants for pin numbers

const int analogPin = A0; // Analog pin where the sensor is connected

const int led= 7; // Digital pin to control the output

// Define threshold value

const int thresholdValue = 500; // Threshold for turning the output on/off

void setup() {

// Initialize serial communication at 9600 bits per second

Serial.begin(9600);

// Set the output pin as OUTPUT

pinMode(led, OUTPUT);

}

void loop() {

// Read the value from the analog pin

int sensorValue = analogRead(analogPin);

// Print the read value to the Serial Monitor

Serial.println(sensorValue);

// Check if the read value is below the threshold

if (sensorValue < thresholdValue) {

// If below threshold, set the output pin LOW (turn it off)

digitalWrite(led, LOW);

} else {

// If above or equal to threshold, set the output pin HIGH (turn it on)

digitalWrite(led, HIGH);

}

// Optional: Add a small delay to make the output more readable

delay(100); // Delay for 100 milliseconds

}