Define pin connections

const int ldr1Pin = 2; // LDR 1 connected to digital pin 2

const int ldr2Pin = 3; // LDR 2 connected to digital pin 3

const int motorPin1 = 7; // L293D motor driver input 1

const int motorPin2 = 9; // L293D motor driver input 2

const int enablePin = 10; // L293D motor driver enable pin

void setup() {

// Initialize serial communication

Serial.begin(9600);

// Initialize motor pins as outputs

pinMode(motorPin1, OUTPUT);

pinMode(motorPin2, OUTPUT);

pinMode(enablePin, OUTPUT);

// Initialize LDR pins as inputs

pinMode(ldr1Pin, INPUT);

pinMode(ldr2Pin, INPUT);

// Enable motor driver

digitalWrite(enablePin, HIGH);

}

void loop() {

// Read LDR values

int ldr1Value = digitalRead(ldr1Pin);

int ldr2Value = digitalRead(ldr2Pin);

// Print LDR values to the serial monitor

Serial.print(“LDR1: “);

Serial.print(ldr1Value);

Serial.print(“ LDR2: “);

Serial.println(ldr2Value);

// Compare LDR values and move motor accordingly

If (ldr1Value == HIGH && ldr2Value == LOW) {

// LDR1 is detecting light, move motor to the left

digitalWrite(motorPin1, HIGH);

digitalWrite(motorPin2, LOW);

} else if (ldr2Value == HIGH && ldr1Value == LOW) {

// LDR2 is detecting light, move motor to the right

digitalWrite(motorPin1, LOW);

digitalWrite(motorPin2, HIGH);

} else {

// Both LDRs are detecting light or both are not detecting light, stop the motor

digitalWrite(motorPin1, LOW);

digitalWrite(motorPin2, LOW);

}

// Small delay to allow for motor movement

Delay(100);

}