Source code

#define IN1 3

#define IN2 5

#define IN3 6

#define IN4 11

#define CONVEYOR1 9

#define CONVEYOR2 8

#define LEDP 4

int command; // Variable to store app command state.

int speed = 204; // Motor speed (0 - 255).

int buttonState = 0;

int lastButtonState = 0;

int conveyorState = 0; // State of the conveyor belt.

void setup() {

pinMode(IN1, OUTPUT);

pinMode(IN2, OUTPUT);

pinMode(IN3, OUTPUT);

pinMode(IN4, OUTPUT);

pinMode(CONVEYOR1, OUTPUT);

pinMode(CONVEYOR2, OUTPUT);

pinMode(LEDP, OUTPUT);

Serial.begin(9600); // Set the baud rate for Bluetooth module.

}

void loop() {

if (Serial.available() > 0) {

command = Serial.read();

Stop(); // Initialize with motors stopped.

switch (command) {

case 'F': forward(); break;

case 'B': back(); break;

case 'L': left(); break;

case 'R': right(); break;

case 'X': conveyorOn(); break;

case 'x': conveyorOff(); break;

}

}

}

void forward() {

analogWrite(IN1, speed);

analogWrite(IN3, speed);

}

void back() {

analogWrite(IN2, speed);

analogWrite(IN4, speed);

}

void left() {

analogWrite(IN3, speed);

analogWrite(IN2, speed);

}

void right() {

analogWrite(IN4, speed);

analogWrite(IN1, speed);

}

void Stop() {

analogWrite(IN1, 0);

analogWrite(IN2, 0);

analogWrite(IN3, 0);

analogWrite(IN4, 0);

}

void conveyorOn() {

digitalWrite(CONVEYOR1, HIGH);

digitalWrite(CONVEYOR2, HIGH);

conveyorState = 1;

}

void conveyorOff() {

digitalWrite(CONVEYOR1, LOW);

digitalWrite(CONVEYOR2, LOW);

conveyorState = 0;

}