

```

// Motor A connections

int enA = 9;

int in1 = 8;

int in2 = 7;

// Motor B connections

int enB = 6;

int in3 = 5;

int in4 = 4;

char commandA; // Variable to store the command for motor A

char commandB; // Variable to store the command for motor B

void setup() {

    Serial.begin(9600); // Start serial communication

    // Set all the motor control pins to outputs

    pinMode(enA, OUTPUT);

    pinMode(enB, OUTPUT);

    pinMode(in1, OUTPUT);

    pinMode(in2, OUTPUT);

```

```
pinMode(in3, OUTPUT);
```

```
pinMode(in4, OUTPUT);
```

```
}
```

```
void loop() {
```

```
  if(Serial.available() > 1){ // Check if at least two characters are available to read
```

```
    commandA = Serial.read(); // Read the command for motor A
```

```
    commandB = Serial.read(); // Read the command for motor B
```

```
    // Move motors according to received commands
```

```
    moveMotors(commandA, commandB);
```

```
  }
```

```
}
```

```
void moveMotors(char cmdA, char cmdB){
```

```
  // Move motor A
```

```
  if(cmdA == 'F'){ // Move motor A forward
```

```
    digitalWrite(in1, HIGH);
```

```
    digitalWrite(in2, LOW);
```

```
analogWrite(enA, 255); // Adjust speed by changing PWM value (0 to 255)

} else if(cmdA == 'B'){ // Move motor A backward

    digitalWrite(in1, LOW);

    digitalWrite(in2, HIGH);

    analogWrite(enA, 255); // Adjust speed by changing PWM value (0 to 255)

} else { // Stop motor A

    digitalWrite(in1, LOW);

    digitalWrite(in2, LOW);

}

// Move motor B

if(cmdB == 'F'){ // Move motor B forward

    digitalWrite(in3, HIGH);

    digitalWrite(in4, LOW);

    analogWrite(enB, 255); // Adjust speed by changing PWM value (0 to 255)

} else if(cmdB == 'B'){ // Move motor B backward

    digitalWrite(in3, LOW);
```

```
digitalWrite(in4, HIGH);  
  
    analogWrite(enB, 255); // Adjust speed by changing PWM value (0 to 255)  
  
} else { // Stop motor B  
  
    digitalWrite(in3, LOW);  
  
    digitalWrite(in4, LOW);  
  
}  
}
```

