

Arduino Code for Voice Controlled Car

This Arduino code controls a robotic car using voice commands sent over Bluetooth. Each command is a single character received by the Arduino and mapped to a specific motor action.

Voice Command to Character Mapping:

- Forward -> F
- Backward -> B
- Left -> L
- Right -> R
- Stop -> S

Arduino Code:

```
char command;

int motor1Pin1 = 3;
int motor1Pin2 = 4;
int motor2Pin1 = 5;
int motor2Pin2 = 6;

void setup() {
  pinMode(motor1Pin1, OUTPUT);
  pinMode(motor1Pin2, OUTPUT);
  pinMode(motor2Pin1, OUTPUT);
  pinMode(motor2Pin2, OUTPUT);
  Serial.begin(9600);
}

void loop() {
  if (Serial.available()) {
    command = Serial.read();
    stopMotors();

    if (command == 'F') {
      digitalWrite(motor1Pin1, HIGH);
      digitalWrite(motor1Pin2, LOW);
      digitalWrite(motor2Pin1, HIGH);
      digitalWrite(motor2Pin2, LOW);
    }
    else if (command == 'B') {
      digitalWrite(motor1Pin1, LOW);
```

```
        digitalWrite(motor1Pin2, HIGH);
        digitalWrite(motor2Pin1, LOW);
        digitalWrite(motor2Pin2, HIGH);
    }
    else if (command == 'L') {
        digitalWrite(motor1Pin1, LOW);
        digitalWrite(motor1Pin2, HIGH);
        digitalWrite(motor2Pin1, HIGH);
        digitalWrite(motor2Pin2, LOW);
    }
    else if (command == 'R') {
        digitalWrite(motor1Pin1, HIGH);
        digitalWrite(motor1Pin2, LOW);
        digitalWrite(motor2Pin1, LOW);
        digitalWrite(motor2Pin2, HIGH);
    }
    else if (command == 'S') {
        stopMotors();
    }
}

void stopMotors() {
    digitalWrite(motor1Pin1, LOW);
    digitalWrite(motor1Pin2, LOW);
    digitalWrite(motor2Pin1, LOW);
    digitalWrite(motor2Pin2, LOW);
}
```