

Hand Gesture Controlled Vehicle

Receiver:

```
#include <SPI.h>
```

```
#include "RF24.h"
```

```
const int enbA = 3;
```

```
const int enbB = 6;
```

```
const int IN1 = 2;  //Right Motor (-)
```

```
const int IN2 = 4;  //Right Motor (+)
```

```
const int IN3 = 5;  //Left Motor (+)
```

```
const int IN4 = 7;  //Right Motor (-)
```

```
int RightSpd = 200;
```

```
int LeftSpd = 250;
```

```
int data[2];
```

```
RF24 radio(8,9);
```

```
const uint64_t pipe = 0xE8E8F0F0E1LL;
```

```
void setup(){
```

```
    pinMode(enbA, OUTPUT);
```

```
    pinMode(enbB, OUTPUT);
```

```
pinMode(IN1, OUTPUT);  
pinMode(IN2, OUTPUT);  
pinMode(IN3, OUTPUT);  
pinMode(IN4, OUTPUT);
```

```
Serial.begin(9600);  
radio.begin();  
radio.openReadingPipe(1, pipe);  
radio.startListening();  
}
```

```
void loop(){  
  if (radio.available()){  
    radio.read(data, sizeof(data));  
  
    if(data[0] < 340){  
  
      analogWrite(enbA, RightSpd);  
      analogWrite(enbB, LeftSpd);  
      digitalWrite(IN1, HIGH);  
      digitalWrite(IN2, LOW);  
      digitalWrite(IN3, HIGH);  
      digitalWrite(IN4, LOW);  
      Serial.println("forward");
```

```
}
```

```
if(data[0] > 360){
```

```
    analogWrite(enbA, RightSpd);
```

```
    analogWrite(enbB, LeftSpd);
```

```
    digitalWrite(IN1, LOW);
```

```
    digitalWrite(IN2, HIGH);
```

```
    digitalWrite(IN3, LOW);
```

```
    digitalWrite(IN4, HIGH);
```

```
    Serial.println("backward");
```

```
}
```

```
if(data[1] > 160){
```

```
    analogWrite(enbA, RightSpd);
```

```
    analogWrite(enbB, LeftSpd);
```

```
    digitalWrite(IN1, LOW);
```

```
    digitalWrite(IN2, HIGH);
```

```
    digitalWrite(IN3, HIGH);
```

```
    digitalWrite(IN4, LOW);
```

```
    Serial.println("right");
```

```
}
```

```
if(data[1] < 140){
```

```
    analogWrite(enbA, RightSpd);
```

```
    analogWrite(enbB, LeftSpd);
```

```
digitalWrite(IN1, HIGH);  
digitalWrite(IN2, LOW);  
digitalWrite(IN3, LOW);  
digitalWrite(IN4, HIGH);  
Serial.println("left");  
}
```

```
if(data[0] > 340 && data[0] < 360 && data[1] > 140 && data[1] < 160){  
    analogWrite(enbA, 0);  
    analogWrite(enbB, 0);  
    digitalWrite(IN1, LOW);  
    digitalWrite(IN2, LOW);  
    digitalWrite(IN3, LOW);  
    digitalWrite(IN4, LOW);  
    Serial.println("stop");  
}  
}  
}
```