

REX8



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TRACKERBOT SETUP GUIDE

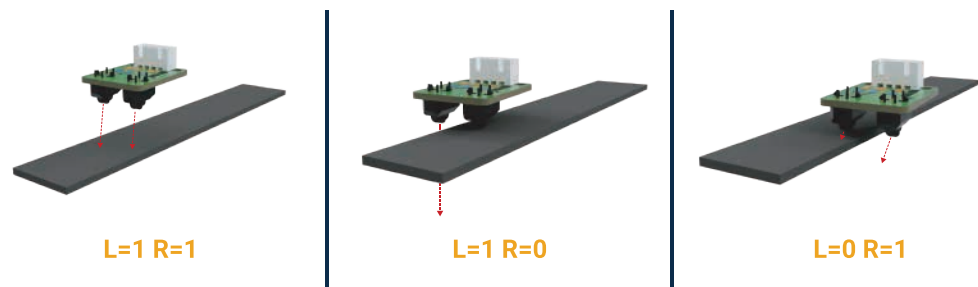


TrackerBot

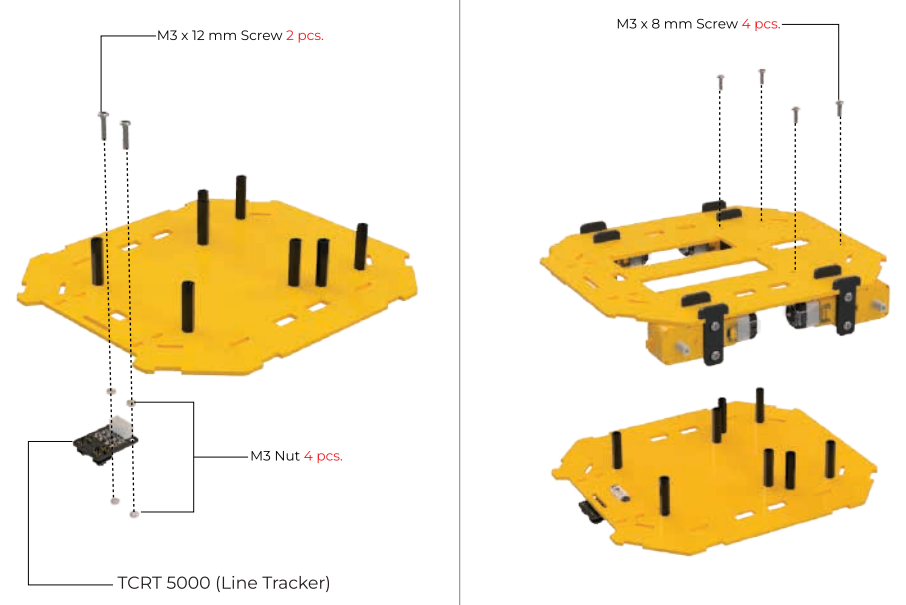
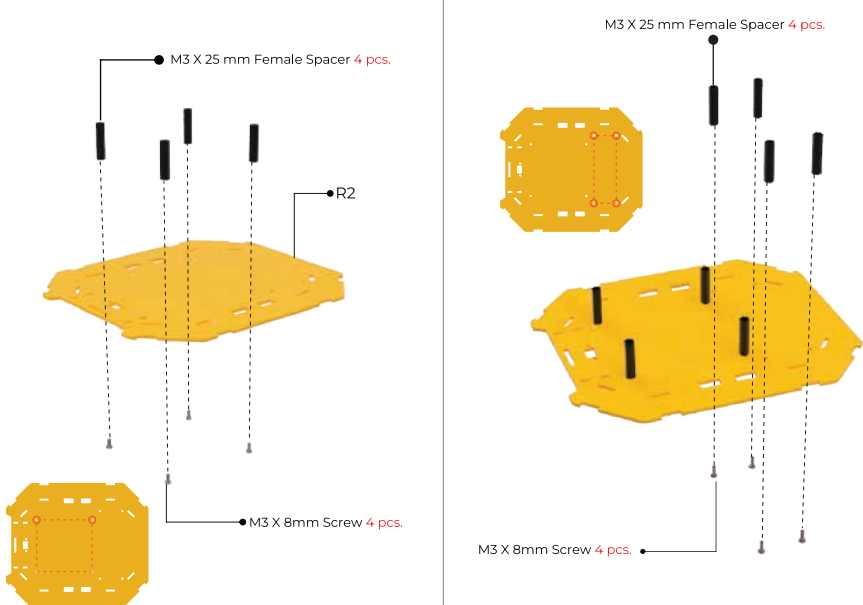
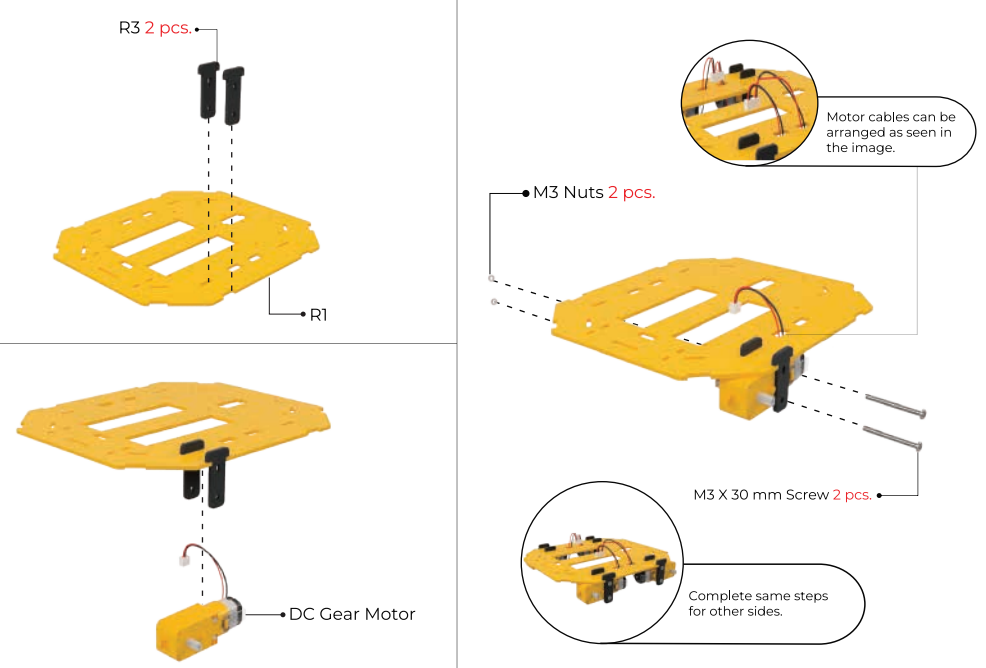
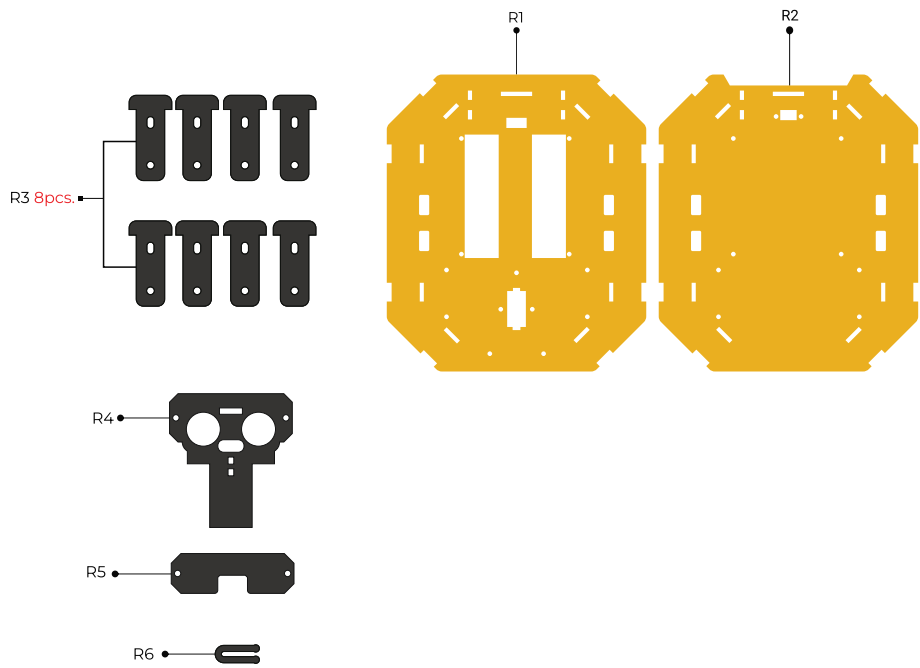
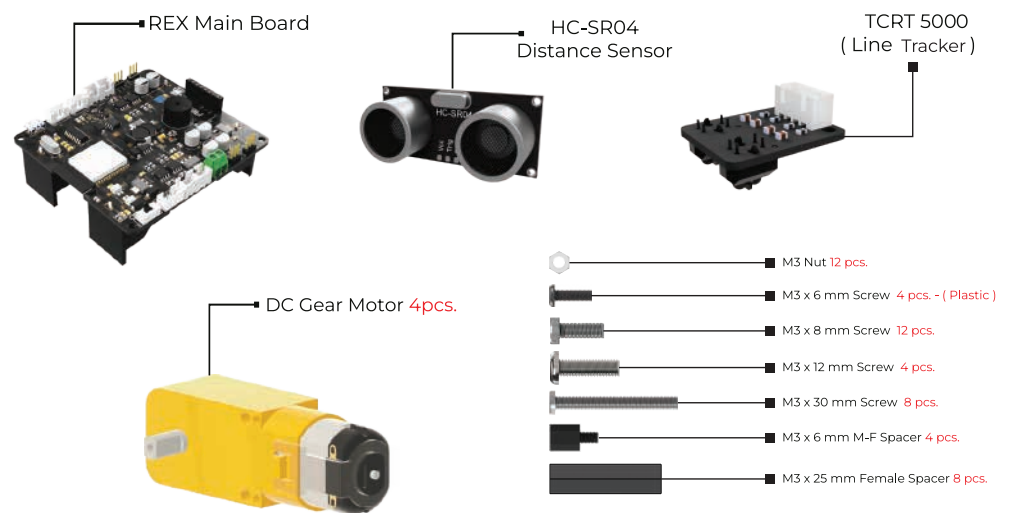
TrackerBot detects the black lines on the track and follows them using the line tracker sensor underneath it. There are two IR transceiver sensors on the line tracker sensor. Based on the values obtained from the sensor, TrackerBot detects the lines on the track. Different colored lines give different analog values. By making suitable adjustments in the code, TrackerBot can also track lines of different colors.

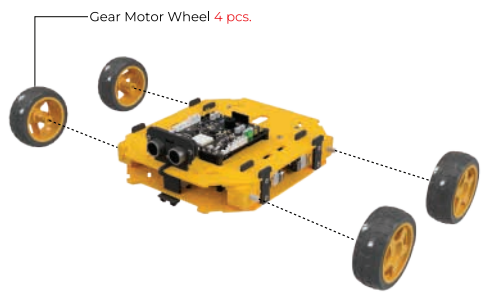
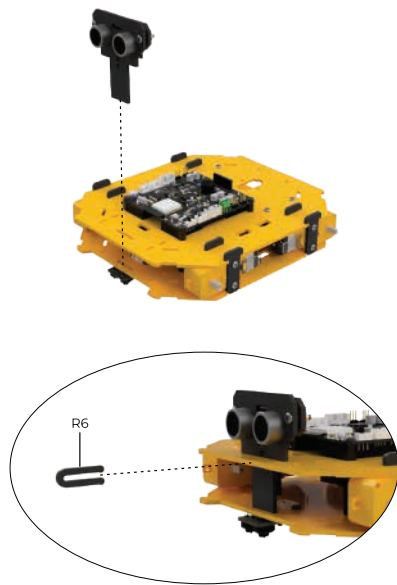
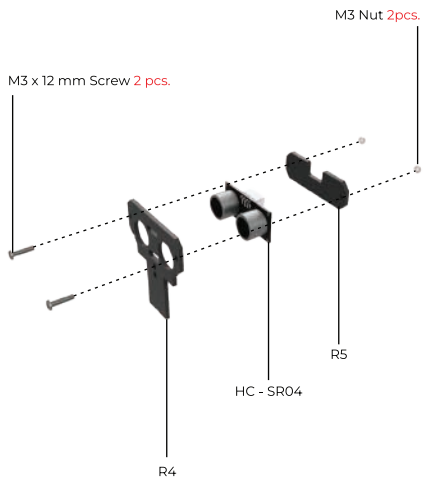
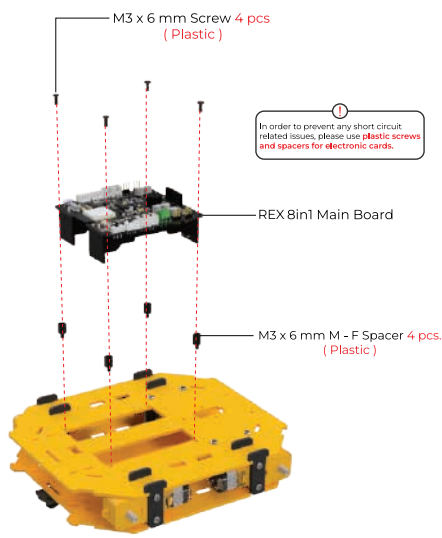
How Does Line Follower Sensor Algorithm Work?

TrackerBot determines its actions by obtaining various values from the line tracker sensor. These three different values are explained in the image below.

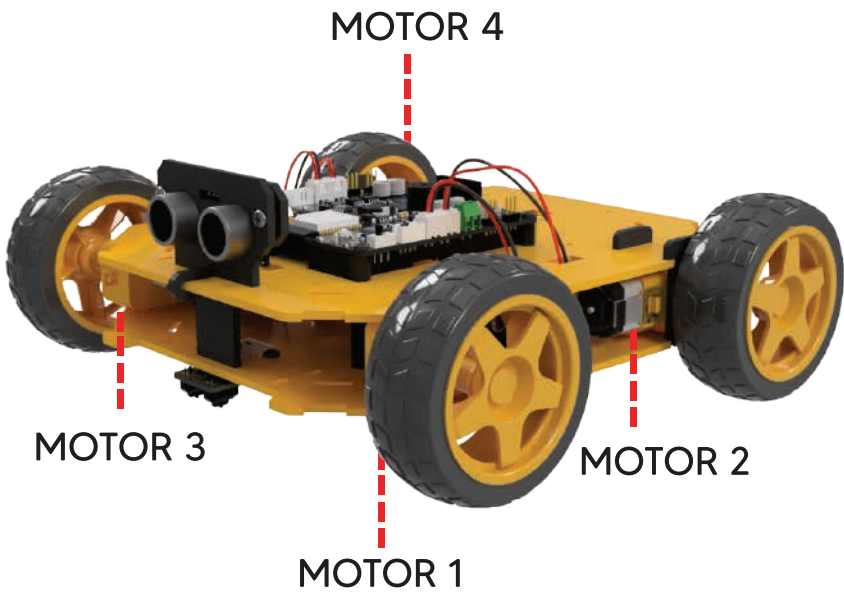


Components of TrackerBot



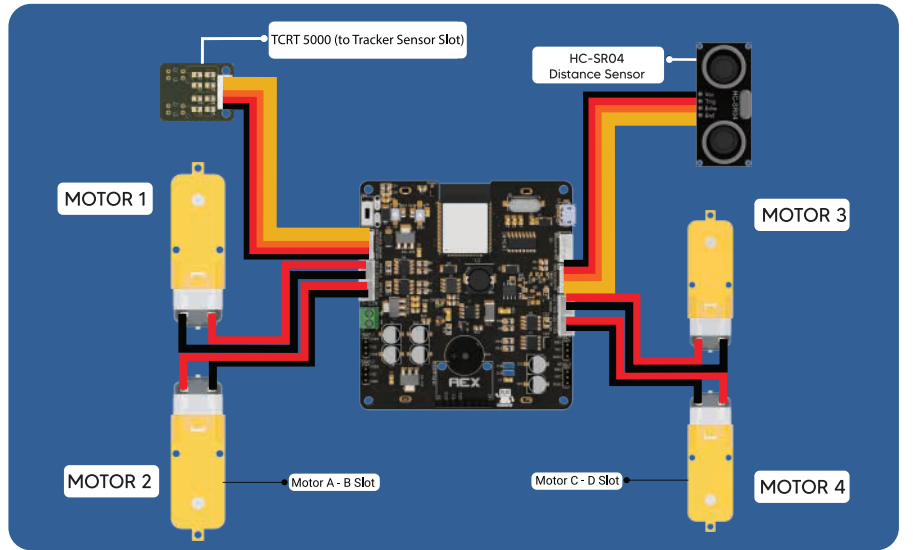


Assembly is finished



The Circuit Diagram

After assembling the acrylic pieces, you can proceed with circuit installation as shown in the diagram below.



Arduino Code

```
TrackBot.h
1 //***REX 8in1 Tracker Bot***
2 //Check the web site for Robots: https://rex-rd5.readthedocs.io/en/latest/
3 #define left_sensor 34 // IR pin
4 #define right_sensor 35 // IR pin
5
6 int trigPin = 4; // Trigger
7 int echoPin = 5; // Echo
8 long duration, cm;
9
10
11 //define motor pins and speeds
12 #define MotorA1 15
13 #define MotorA2 23
14
15 #define MotorB1 32
16 #define MotorB2 33
17
18 #define MotorC1 17
19 #define MotorC2 10
20
21 #define MotorD1 27
22 #define MotorD2 14
23
24 #define wld 200
25 #define slow 150
26 #define reverse 128
27
28 #define STOP 0
29 #define FWD 1
30 #define BWD 2
31 #define RIGHT 3
32 #define LEFT 4
33 #define THRESHOLD 2500
34
35
36 uint8_t directionStt = STOP;
37 uint8_t oldDirection = STOP;
38
39 unsigned long reverseTime = 0;
40
```

<http://rbt.ist/trackercode>



Scan the QR code to go to the whole code and the necessary libraries.