

REX8



GitHub
rbt.ist/rexgithub

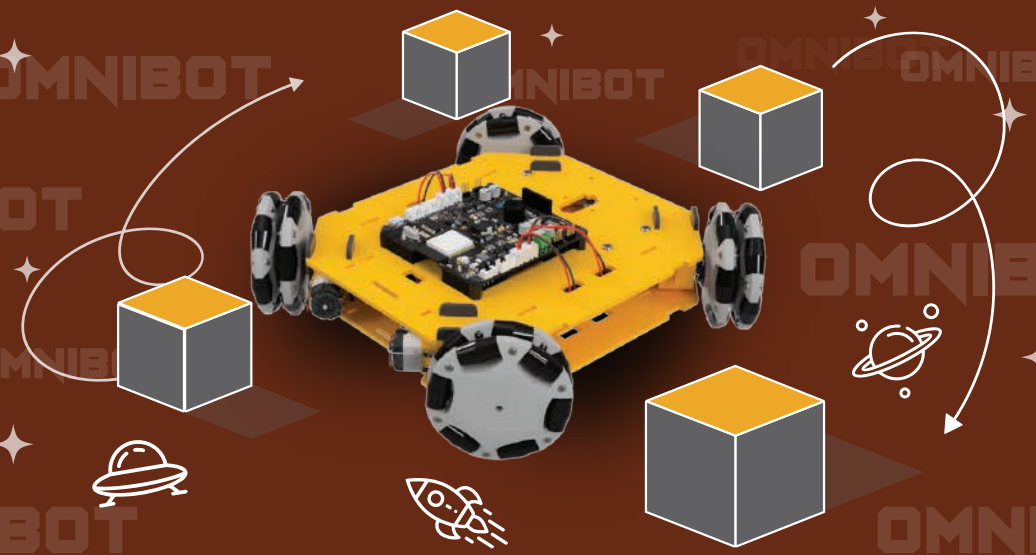


REX DOCS
rbt.ist/rexrdt



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OMNIBOT SETUP GUIDE



OmniBot

Unlike other REX robots, OmniBot uses specially designed omni wheels. These wheels enable 360° easy movement for OmniBot. Thanks to the omni wheels, OmniBot can move at any angle without the need for turning.

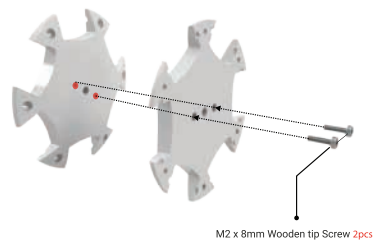
How Does Omni Wheels Work?

OmniBot is a robot that utilizes 4 DC motors. Let's analyze how a robot using 4 omni wheels moves with the image below.



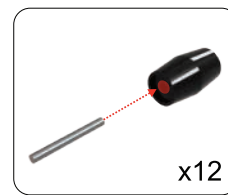
The Installation Steps of The Omni Wheels

①



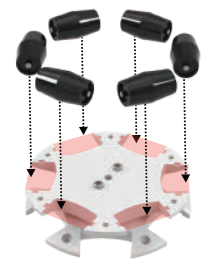
M2 x 8mm Wooden tip Screw 2pcs.

②



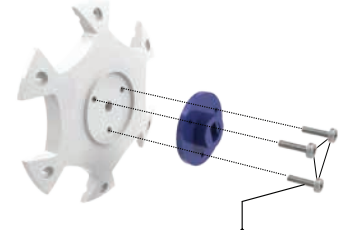
x12

③



M2 x 8mm Wooden tip Screw 3pcs.

④

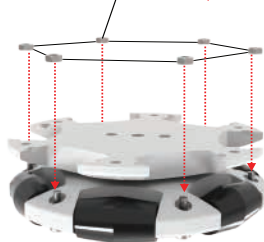


M2 x 8mm Wooden tip Screw 3pcs.

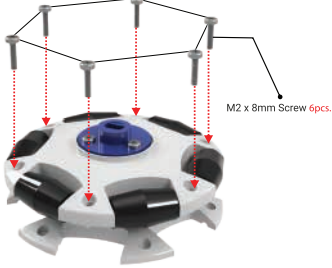
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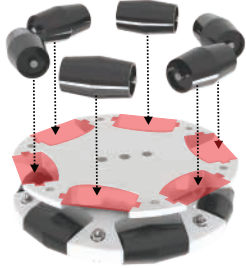


⑥



M2 x 8mm Screw 6pcs.

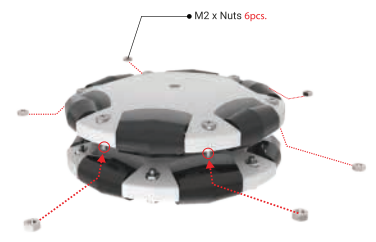
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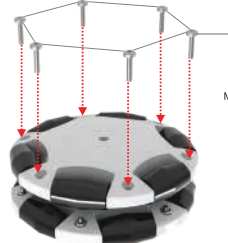
⑤



⑦



⑥

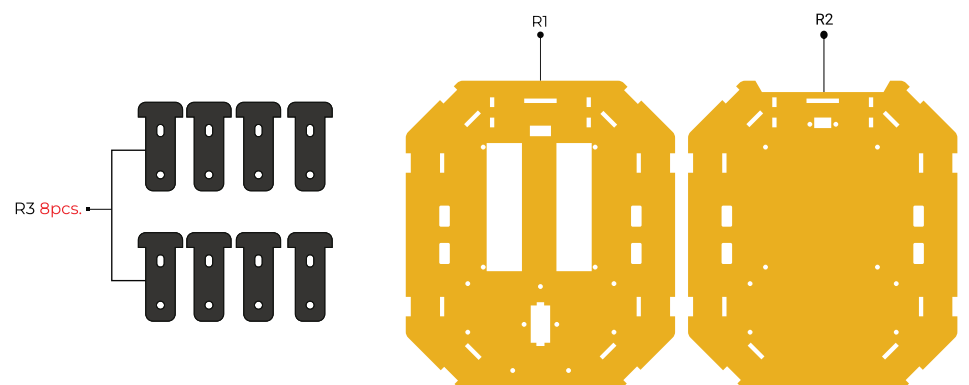
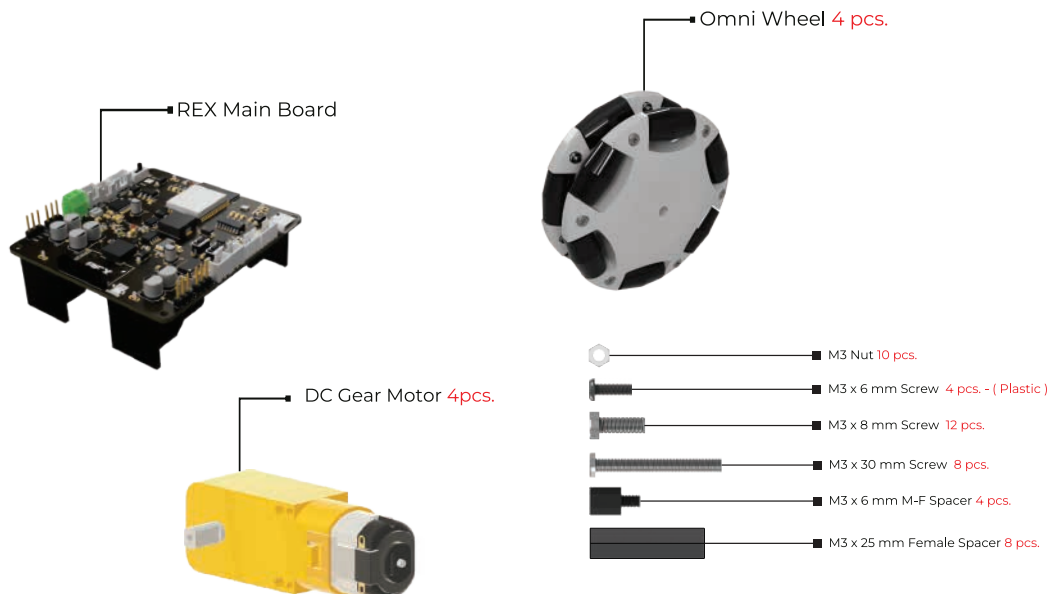


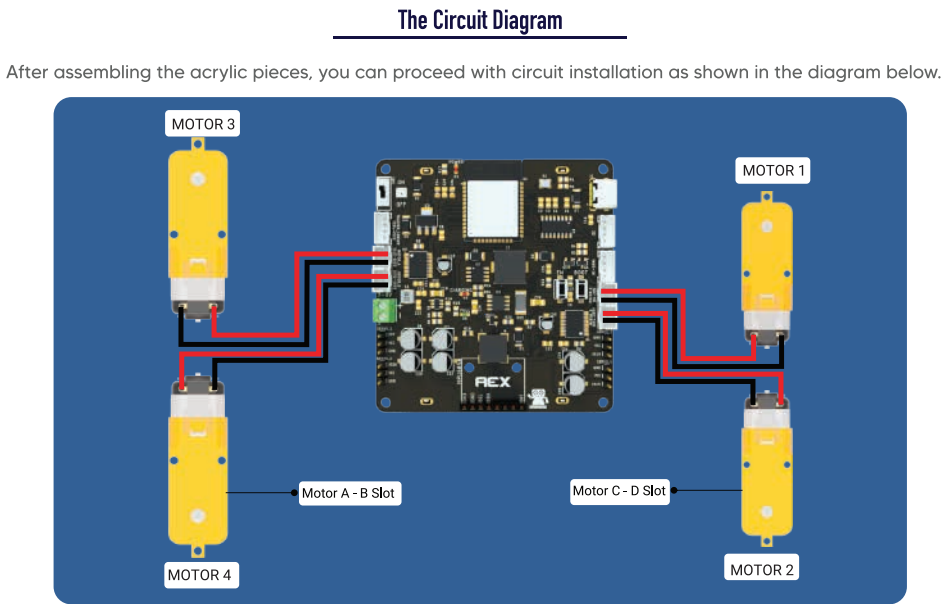
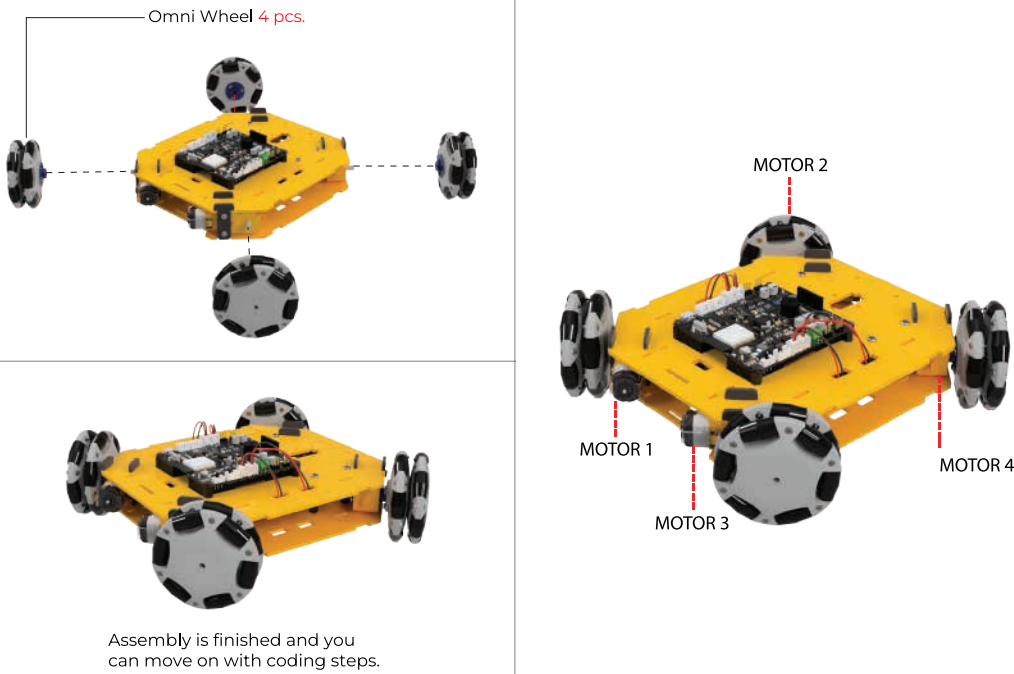
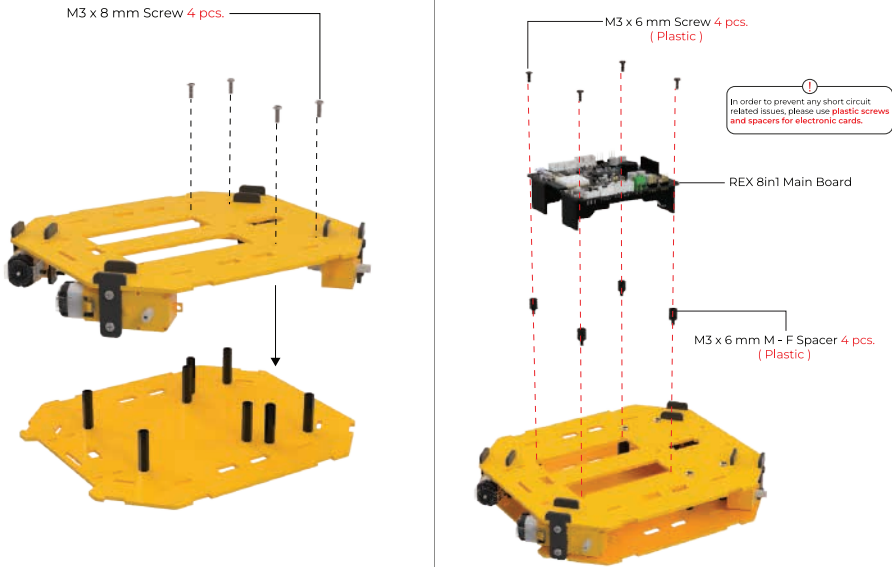
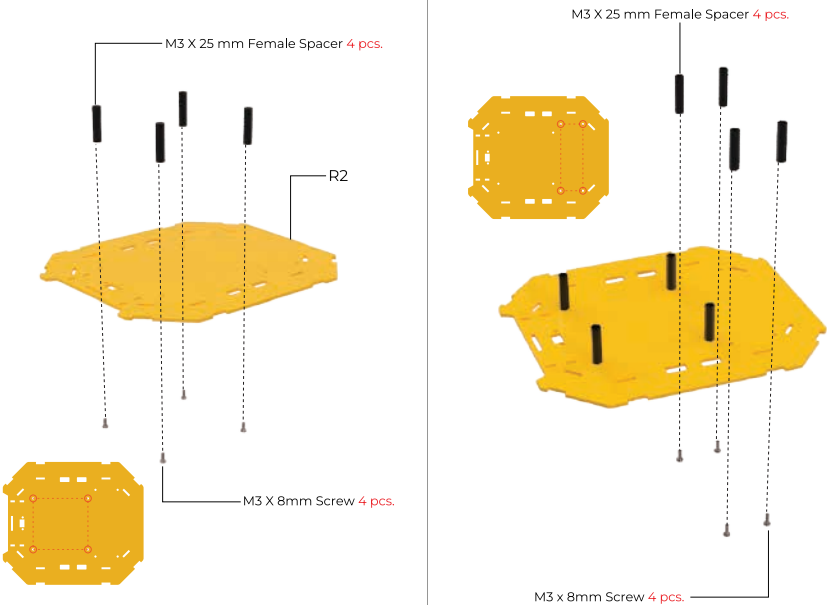
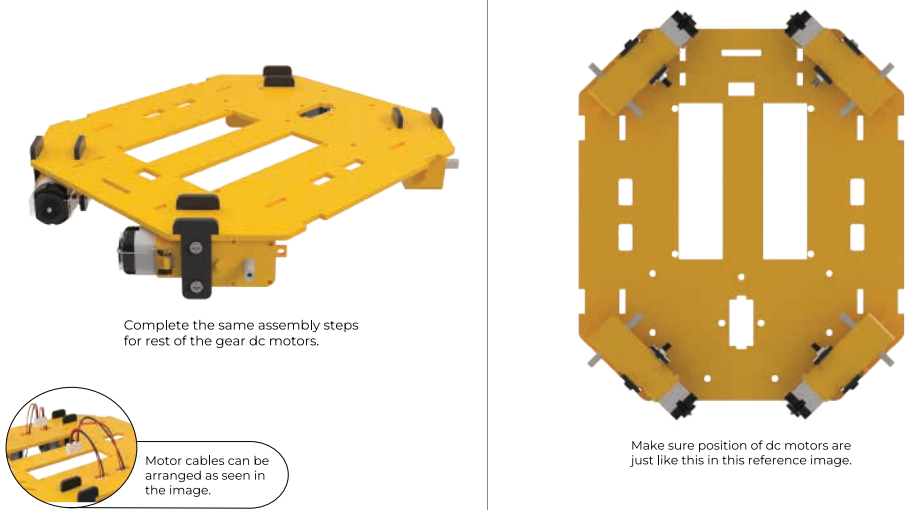
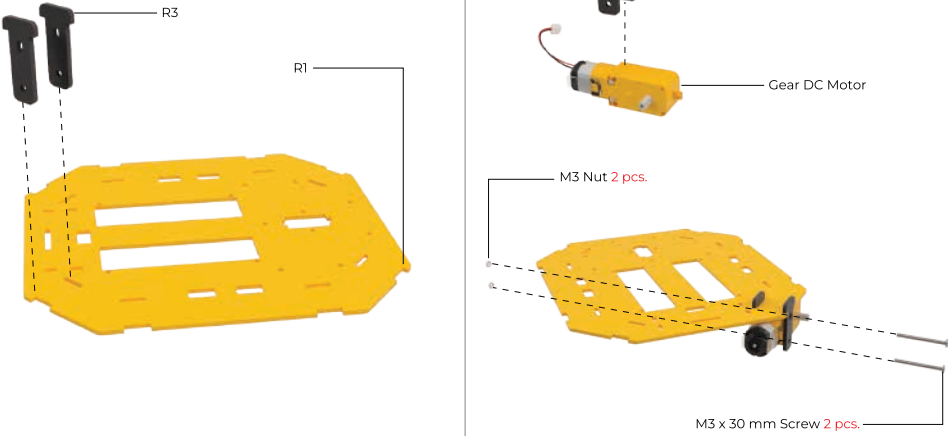
M2 x 8mm Screw 6pcs.

⑧



Components of TrackerBot





Arduino Code

```
OmniBotV5
1 //***REX Bin1 Omni Bot***
2 //Check the web site for Robots https://rex-rbt-realhelios.com/en/latest/
3
4 #define CUSTOM_SETTINGS
5 #include <Arduino.h>
6 #include <ESP8266.h>
7 #include <ESP8266.h>
8 #include <ESP8266.h>
9 #include <ESP8266.h>
10 #include <ESP8266.h>
11
12
13 //define pins of motors
14 //DC Motor 1
15 #define MOTOR1 21
16 #define MOTOR2 15
17
18 //DC Motor 2
19 #define MOTOR3 31
20 #define MOTOR4 32
21
22 //DC Motor 3
23 #define MOTOR5 16
24 #define MOTOR6 17
25
26 //DC Motor 4
27 #define MOTOR7 14
28 #define MOTOR8 27
29 #define horn 2
30
31 #define low_s 300
32 #define mid_s 250
33 #define high_s 200
34
35 int i = 0;
36 void setup() {
37   //active pins which is defined
38   pinMode(horn, OUTPUT);
39   pinMode(MOTOR1, OUTPUT);
40   pinMode(MOTOR2, OUTPUT);
41   pinMode(MOTOR3, OUTPUT);
42   pinMode(MOTOR4, OUTPUT);
43 }
```



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