



rbt.ist/rexgithub









ArmBot is a REX robot that can move items around it from one point to another, thanks to the 4-axis robot arm and wheels it has in its body.

What is Robot Arm? Where Is Robot Arm Used?

With advancements in technology, robotic arms are frequently used to reduce manpower in industrial $\frac{1}{2}$ production and prevent accidents that individuals might encounter in hazardous tasks. The capacity of the robot arm to reach various points is determined by the number of axes. The robot arm included in The REX 8 in 1 kit is a 4-axis robotic arm capable of reaching four different points by utilizing four servo motors.







Types of Robot Arm

Robot arms are divided into five according to their features.

Joint Robot Arm

A robot with joints that can rotate to at least three different points is referred to as a robotic arm with joints.

It is the robot arm that moves only spherically. The range of motion is restricted according to the length of the arms.

Cylindrical Robot Arm

This type of robot arms move in a cylindrical workspace.

■ Cartesian Robot Arm

It is a robot arm that moves linearly in the X, Y and Z axes.

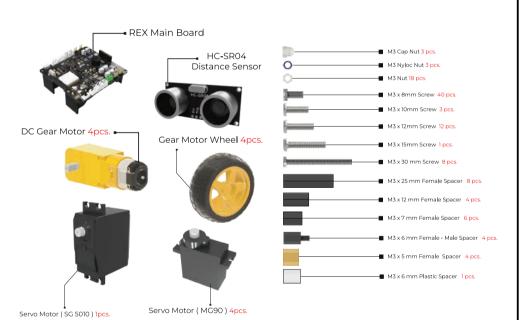
SCARA Robot Arm

The most fundamental characteristic that sets the SCARA Robot Arm apart from a joint robot arm is that its rotation axes are vertical. While it does not have vertical movement, it offers various options in the horizontal direction.

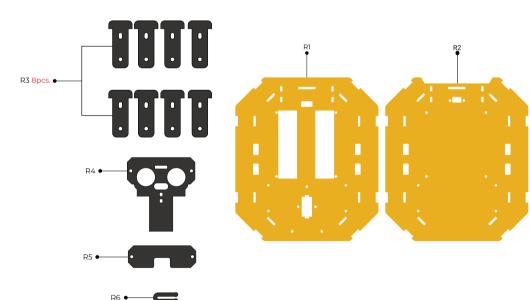








Plexiglass Parts (Robot Chasis)

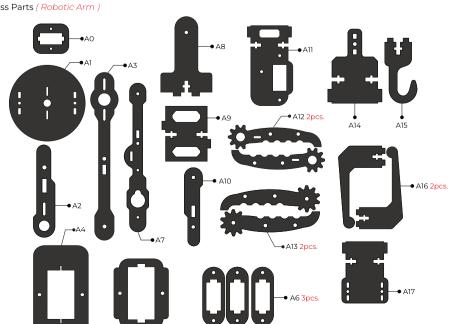




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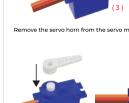


Servo Motor Calibration (Essential)

Before starting the assembly, you have to manually calibrate the angles of the servo motors. Otherwise, Servo Motors won't be working properly.

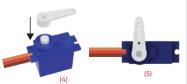


Then slowly turn the servo horn clockwise until it stops. It is not a problem if the servo horn is not the same as the angle shown in the image above. The important thing here is that you have hit the last angle of the servo. (2)

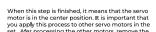


Reattach (4) and reposition the servo horn perpendicular to the servo motor as shown. (5)





Slowly turn the servo horn counterclockwise (6) until it is parallel with the servo motor, as seen in the

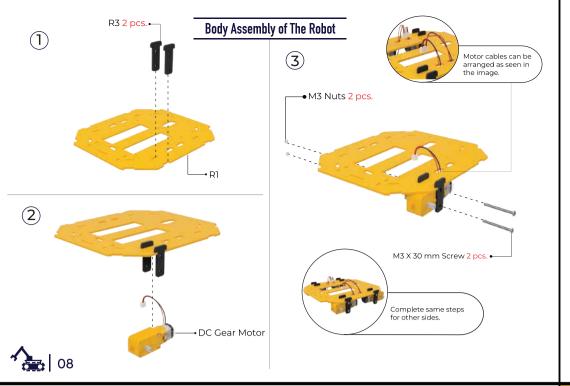


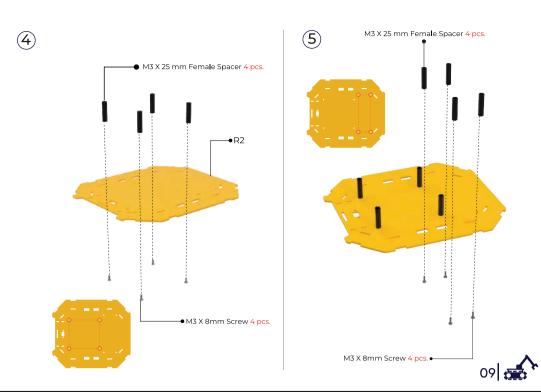


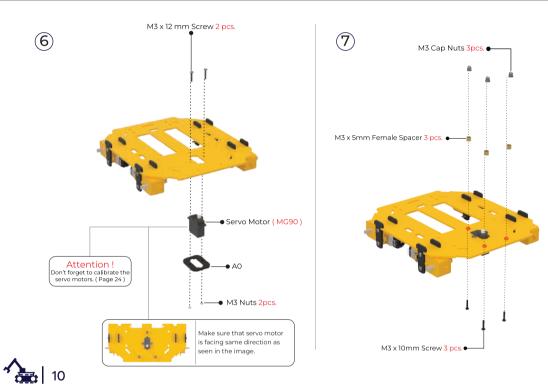


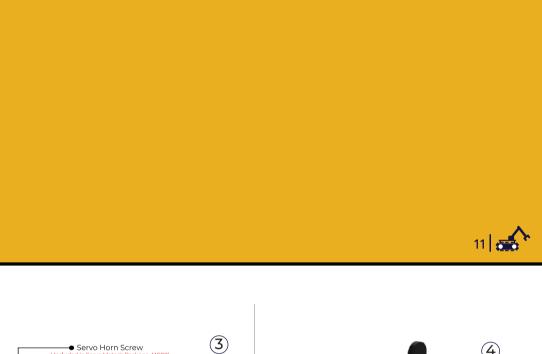


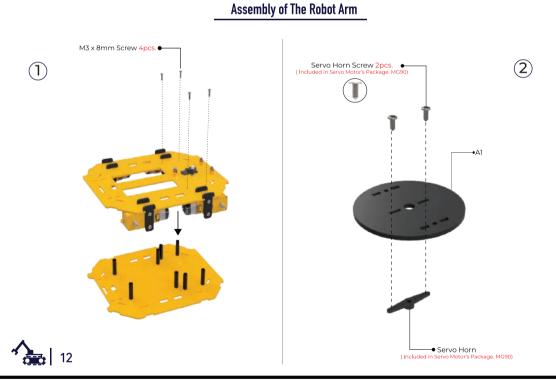


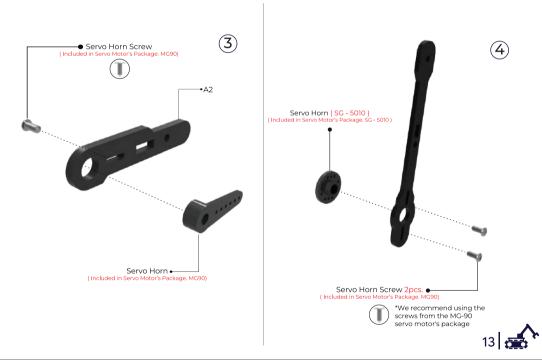


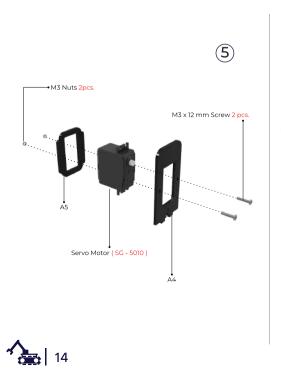


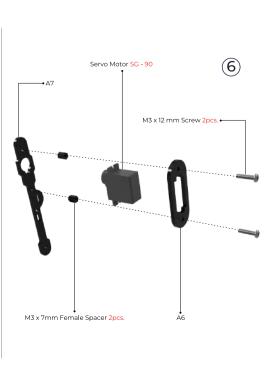








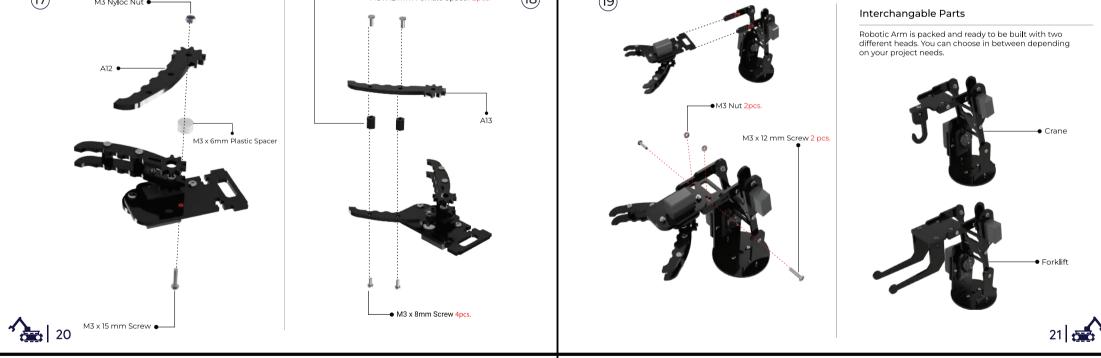


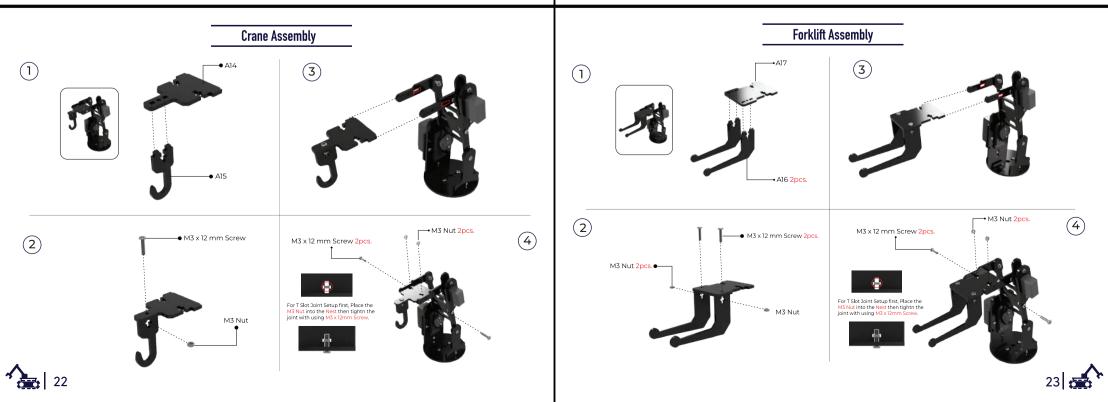


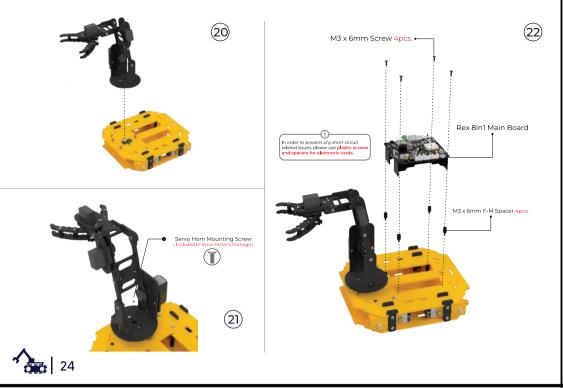


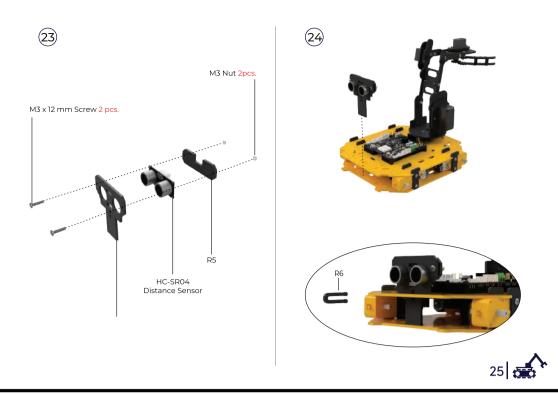














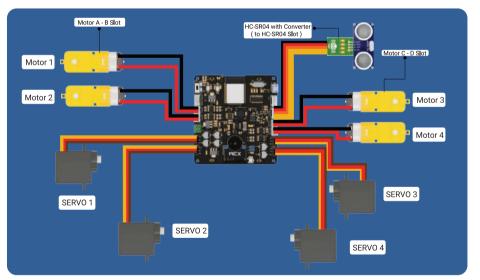






The Circuit Diagram

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





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