

Robot Arm Build

Parts List

5 Short SHD¹ screws
19 Long SHD¹ screws
53 Nuts
9 Short screws
31 Med screws
44 Long screws
6 Servo horns
3 bearings
4 Servo brackets
2 U brackets
1 U bracket W/hole for servo
1 gripper
1 extension shaft
6 servos
2 L brackets

1. Servo hold down, looks like it has a washer on the head.

Build steps

There is a video in with the pictures on the Amazon page for the kit. [6DOF Arm Kit](#)

It “kind of” walks thru the assembly. The below steps hopefully make the process clearer. Pay attention to the size/types of the screws used in each step. Also I changed the which way some of the screws are inserted to simplify assembly.

NOTE: Set all servos to center before assembling. All horns go with the holes lined up to the long axis of the servo, except the gripper (see below).

1. Base half's together: 8 nuts, 8 long screws
2. Servo bracket to base: 4 nuts, 4 long screws
3. Servo to bracket on base: 4 long SHD screws and nuts. (Screws down from top)
4. Servo horn to servo in bracket on base: 1 med screw
5. 2nd Bracket to servo horn on base servo: 4 med screws
6. U bracket to U bracket: 4 long screws and nuts
7. U Bracket w/bearing inserted to bracket on base servo horn: 1 long screw and nut
8. Servo horn to next servo: 1 med screw
9. Servo to bracket on base servo: 4 long SHD screws and nuts. (Screws in from top of servo)
10. U bracket to servo horn: 4 med screws
- 11: L brackets to ends of extension shaft: 8 short screws (Need short to not hit shaft)

12. Check that L bracket ends are in line. (Sits flat on table. Use allen key to loosen set screw and adjust if needed.)
13. 2 Servo brackets to L brackets: 8 long screws and nuts
14. Servo to U bracket with servo hole: 4 long screws and nuts (Screws from back, nuts on top of servo)
15. Servo horn to next servo: 1 med screw
16. U Bracket w/servo w/bearing inserted to bracket on extension shaft: 1 long screw and nut
17. Servo horn to next servo: 1 med screw
18. Servo to bracket w/servo: 4 long SHD screws and nuts. (Screws in from top of servo)
19. U bracket to servo horn: 4 med screws
20. U Bracket in base w/bearing inserted to bracket on extension shaft: 1 long screw and nut
21. Servo horn to next servo: 1 med screw
22. Servo to bracket: 4 long SHD screws and nuts. (Screws in from top of servo)
23. U bracket to servo horn: 4 med screws
24. Tighten screws on gripper joints, not to tight, gripper arms should move freely, but not wobble.
25. Attach last servo to gripper: 4 short SHD screws
26. Servo horn to servo: 1 med screw Make sure the gears are meshed so when the gripper is closed the gear on the servo has a tooth on the top. With the servo in the center position the horn should be at a 45 angle with the gripper mostly open. See the pictures below.

