

# **uStepper** Robot Arm 4.0

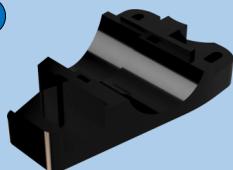
## Vacuum Gripper System



# Bill Of Materials

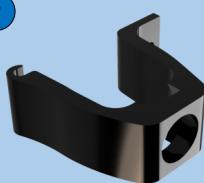
1

1 x



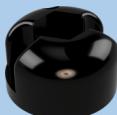
2

1 x



3

1 x



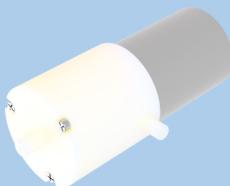
1 x Vacuum End Effector



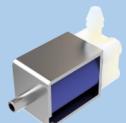
2 x M3 x 20 mm



1 x Cable Tie 2.4x150 mm



1 x 12 V Vacuum Pump



1 x 5 V Solenoid Valve

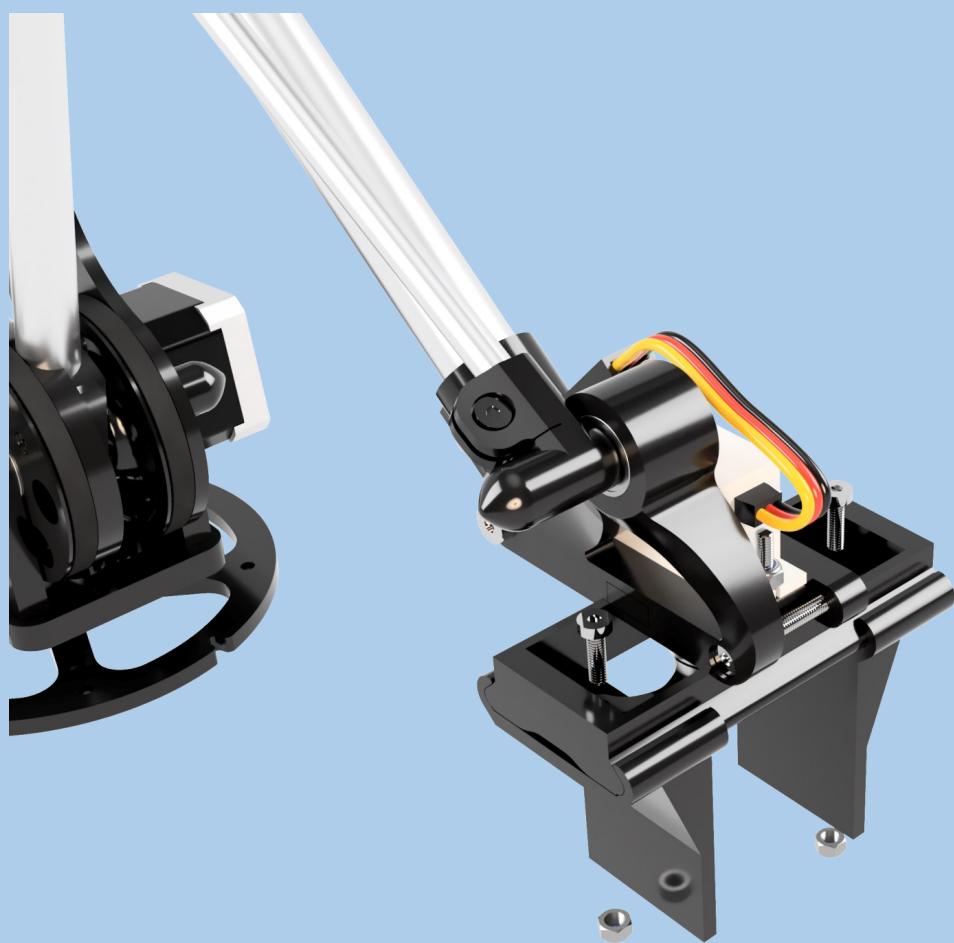


1 m 4 mm OD x 2 mm ID Silicone Hose

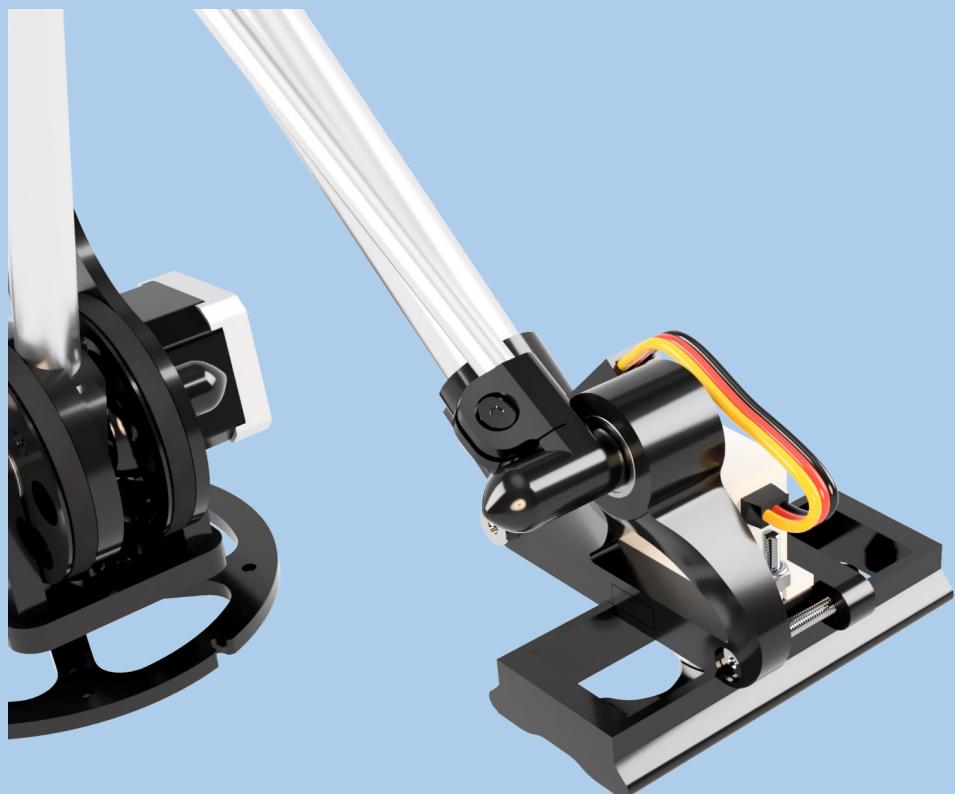
0    1    2    3    4    5    6    7    8    9    10

## **Disassembly of standard gripper**

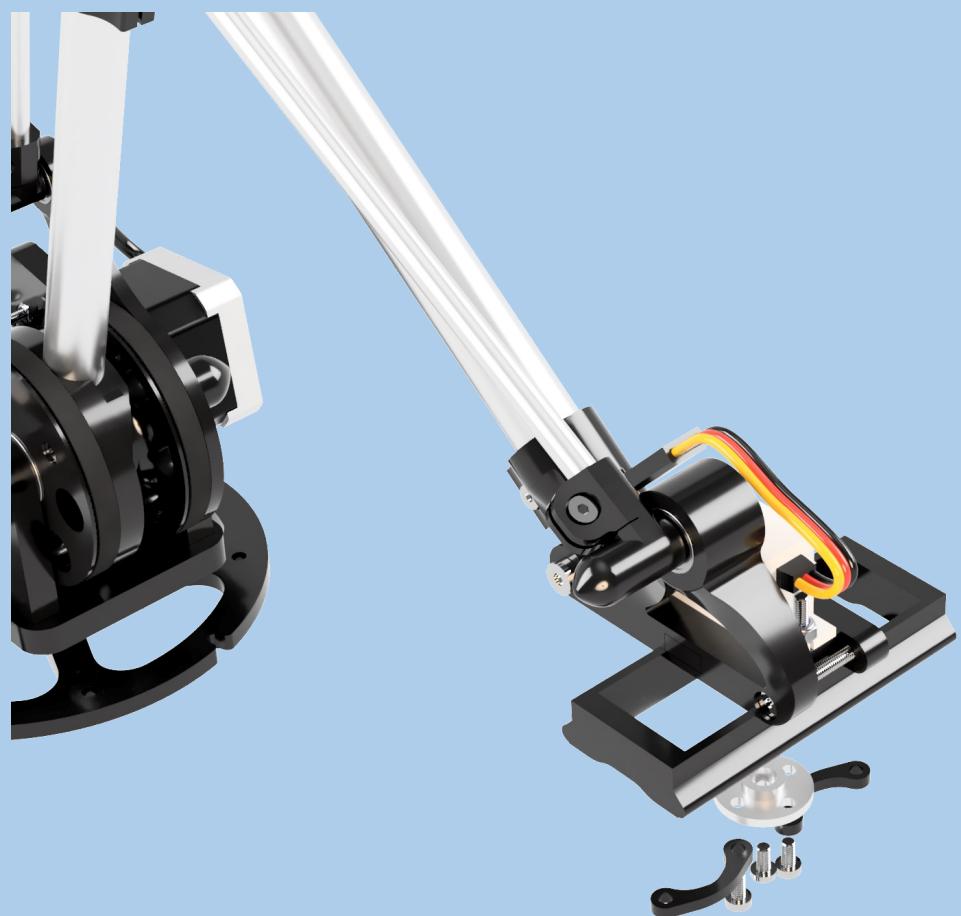
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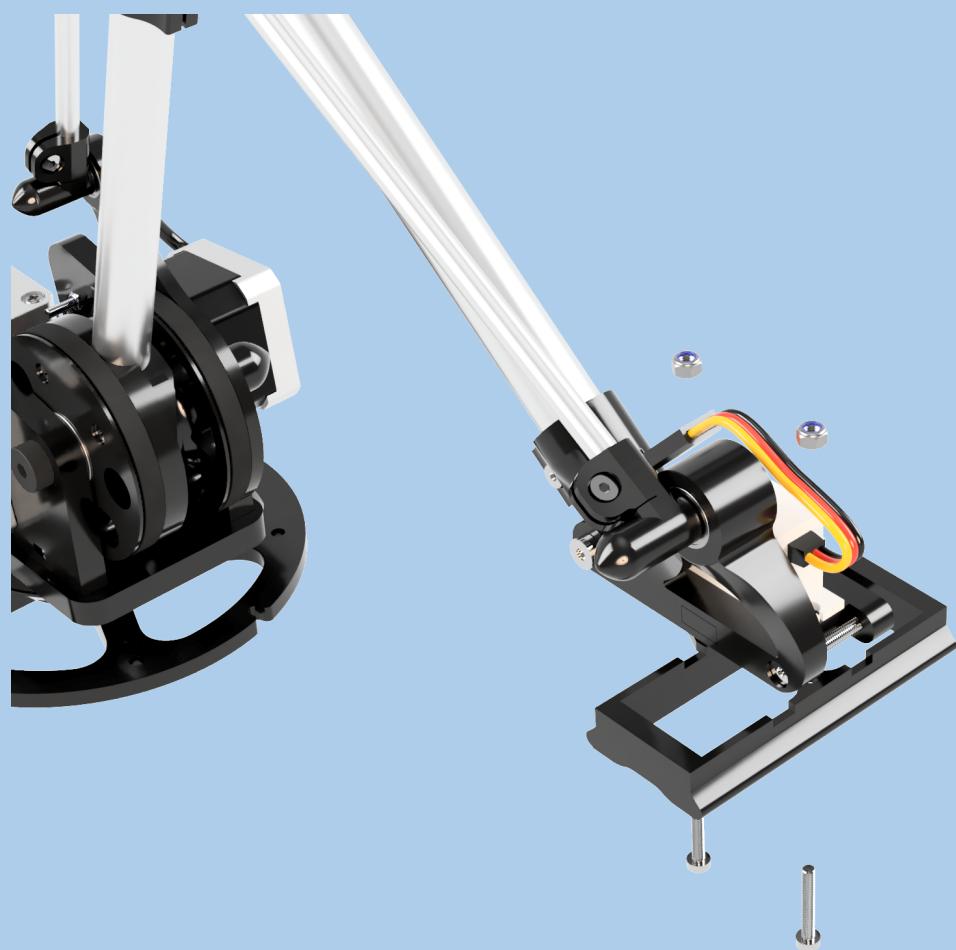
2



3



4

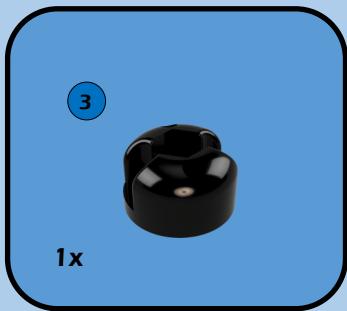


5



# **Assembly of Vacuum Gripper System**

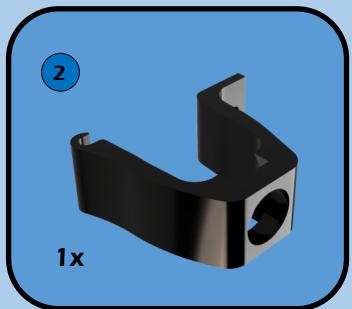
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6

Mount the servo horn and use the  $2 \times M3 \times 6 \text{ mm}$  bolts for mounting as shown





7



8

**Mount the M3 x 20 mm bolt and M3 SL nut re-moved previously**





1x

9

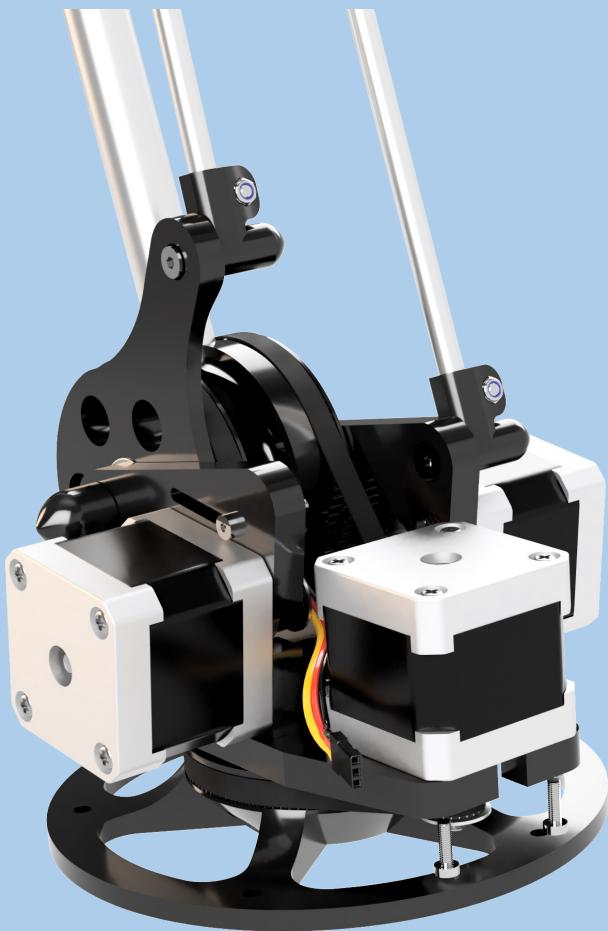


10

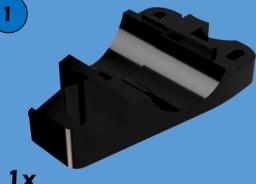


11

Remove 2 x M3 x 10 mm bolts



1



M3x20

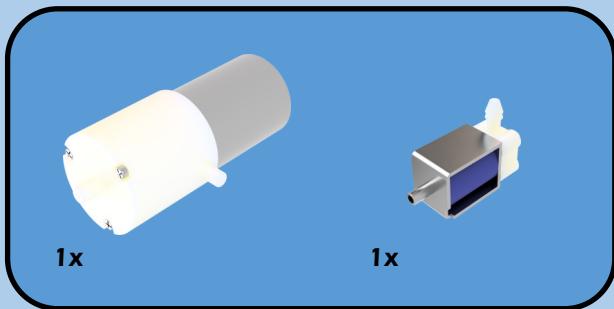


1x

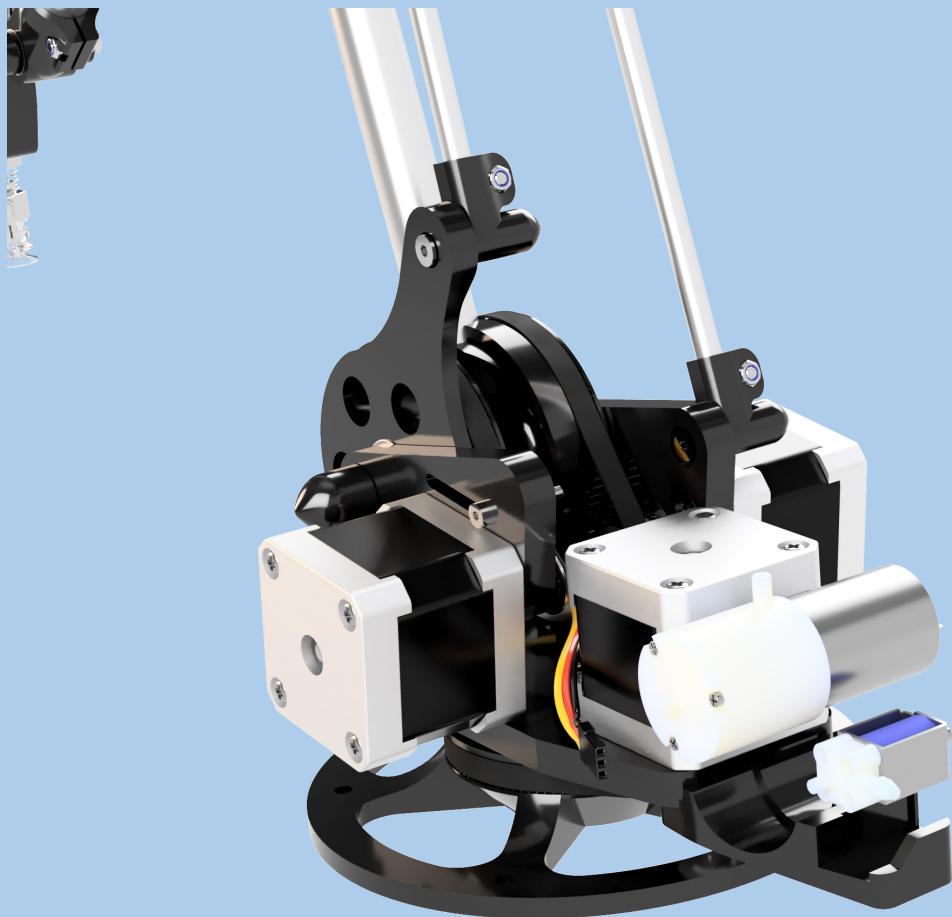
2x

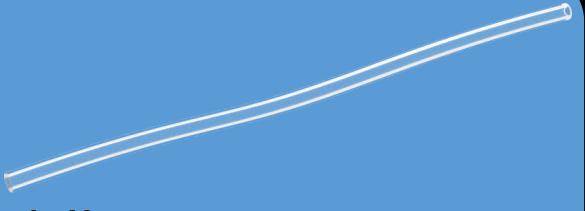
12





13





**14**

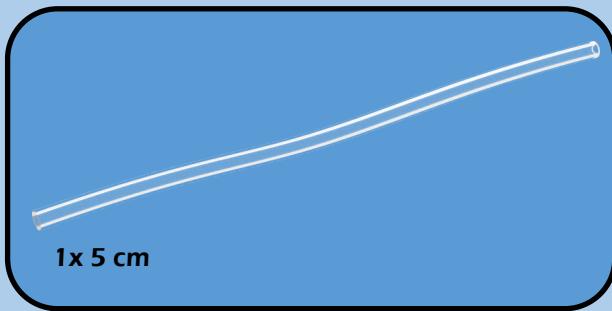
Feed the hose through 15 mm tubing from end effector side like shown



**15**

**Feed the hose through 15 mm tubing from end effector side like shown**

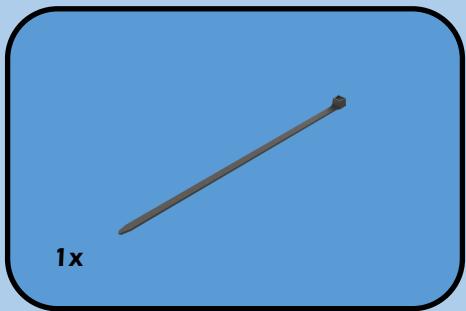




**16**

Connect hose to valve, and connect hose from pump to valve as shown





1x

17





# Disclaimer

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