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ISDN 2400: Physical Prototyping 24-25 Spring  
OpenFish Mechanism Assembling Lab I

# OPENFISH MECHANISM ASSEMBLING

# RECOPROCAL TOUCH EXPERIMENT



[Watch video on YouTube](#)

Error 153

Video player configuration error



# LAB OBJECTIVE



## OBJECTIVE

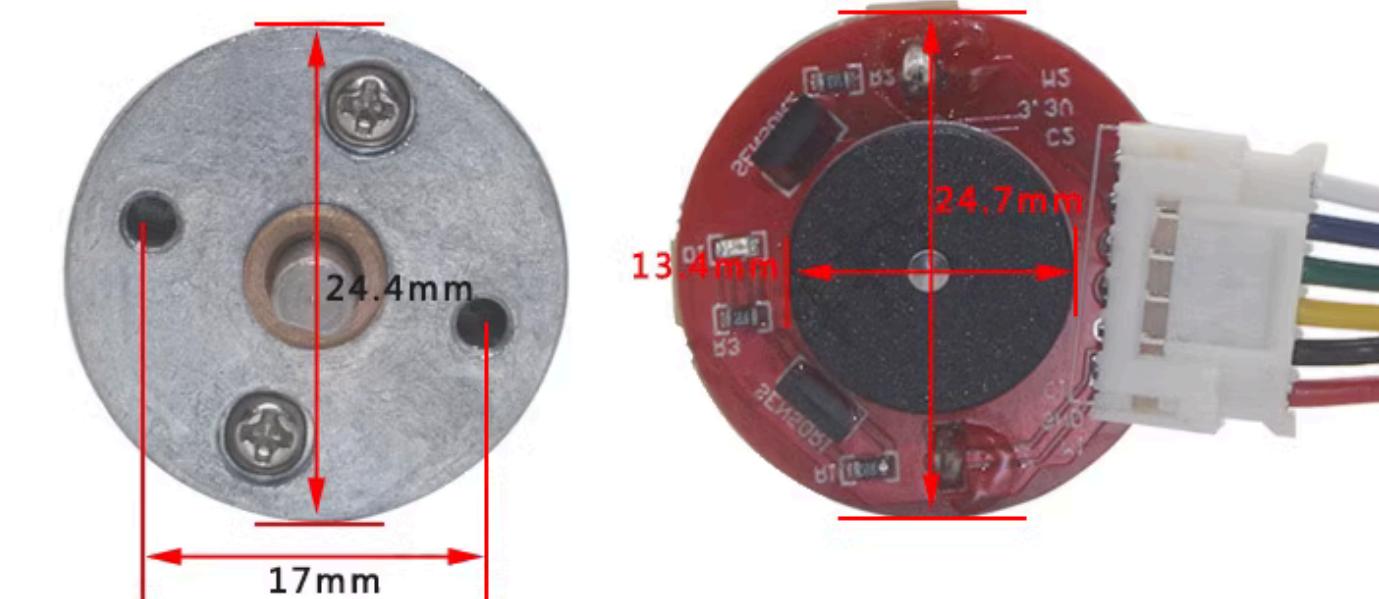
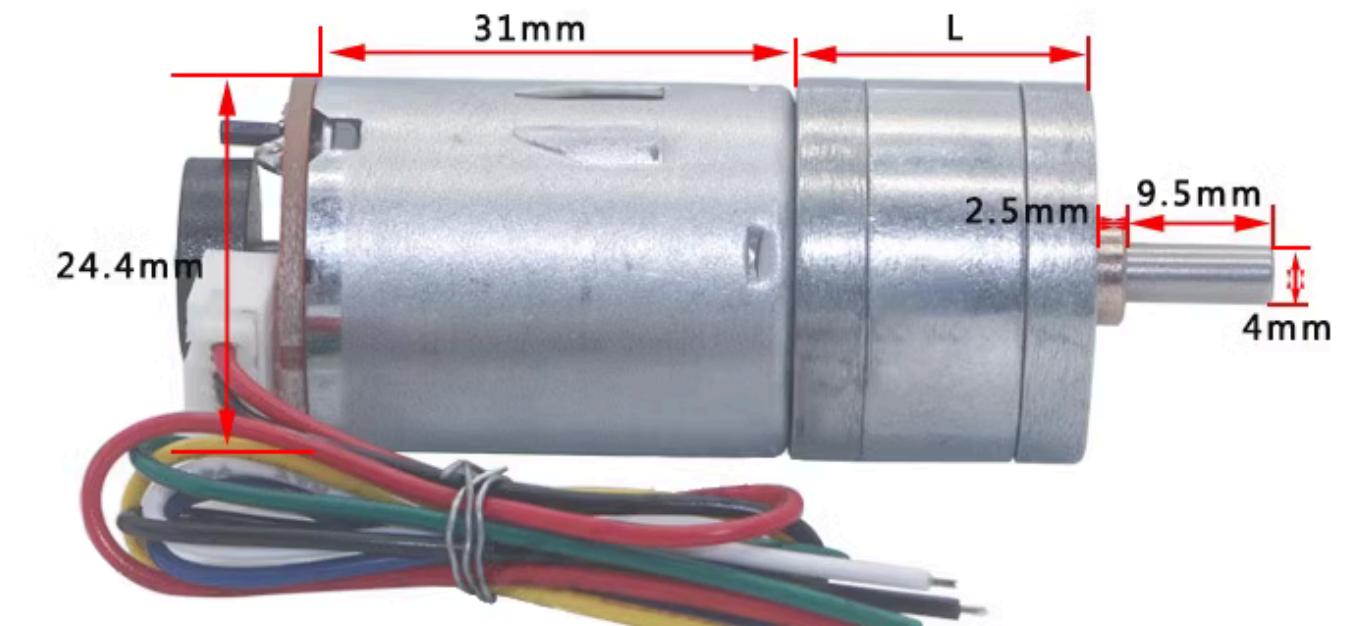
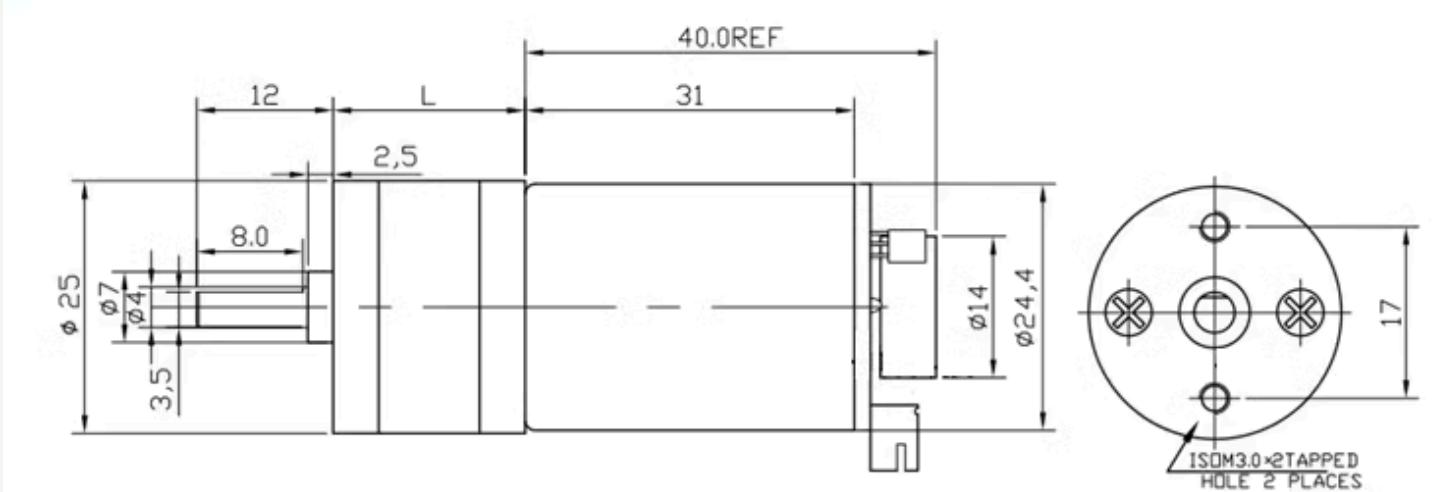
In this lab, you will learn about the mechanisms within OpenFish and how to install them. This lab will primarily involve hands-on activities.

# GET YOUR MOTOR



## JGA25-370 Geared Motor DC12V 620RPM

Parameter	Specification
Motor Model	JGA25-370-9.6K
Rated Voltage	6 V ±10%
No-load Speed	620 RPM
No-load Current	0.1 A
Rated Speed	477 RPM
Rated Current	0.5 A
Locked-rotor Torque	0.16 KG.CM
Rated Torque	0.9 KG.CM
Locked-rotor Current	2.6 A
Weight	83 g
L Dimension	17.5 MM



# GET YOUR TOOLBOX



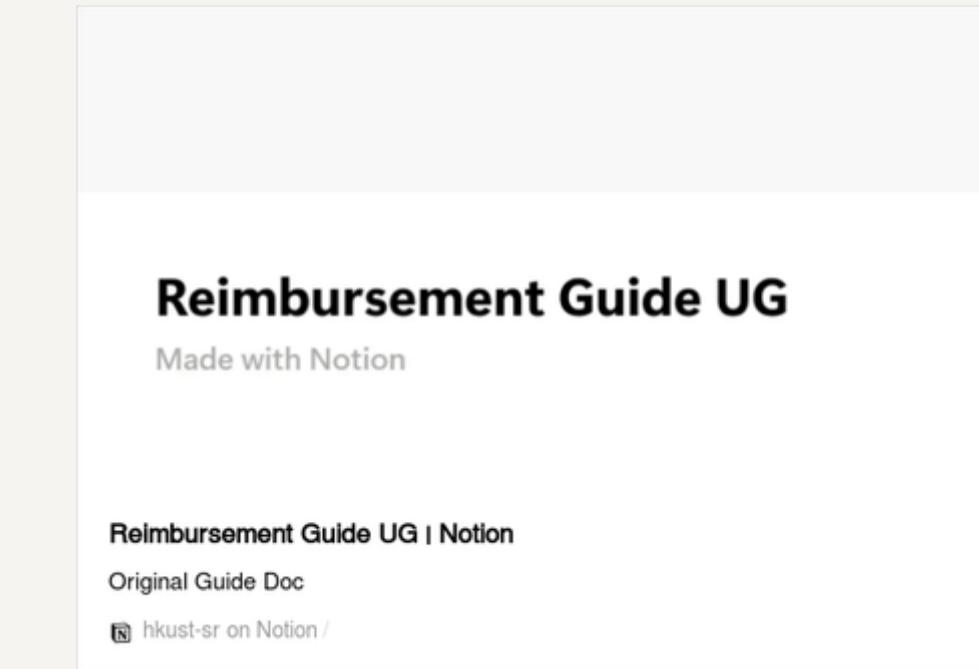
- You must return this toolbox after every lab or class.
- Please ensure it is returned in the same condition as when you borrowed it.
- You're welcome to use your own tools if you prefer.
- If you are enrolled in the ISD Year Long Project course, you can borrow a toolbox from Terrence for the duration of the year.



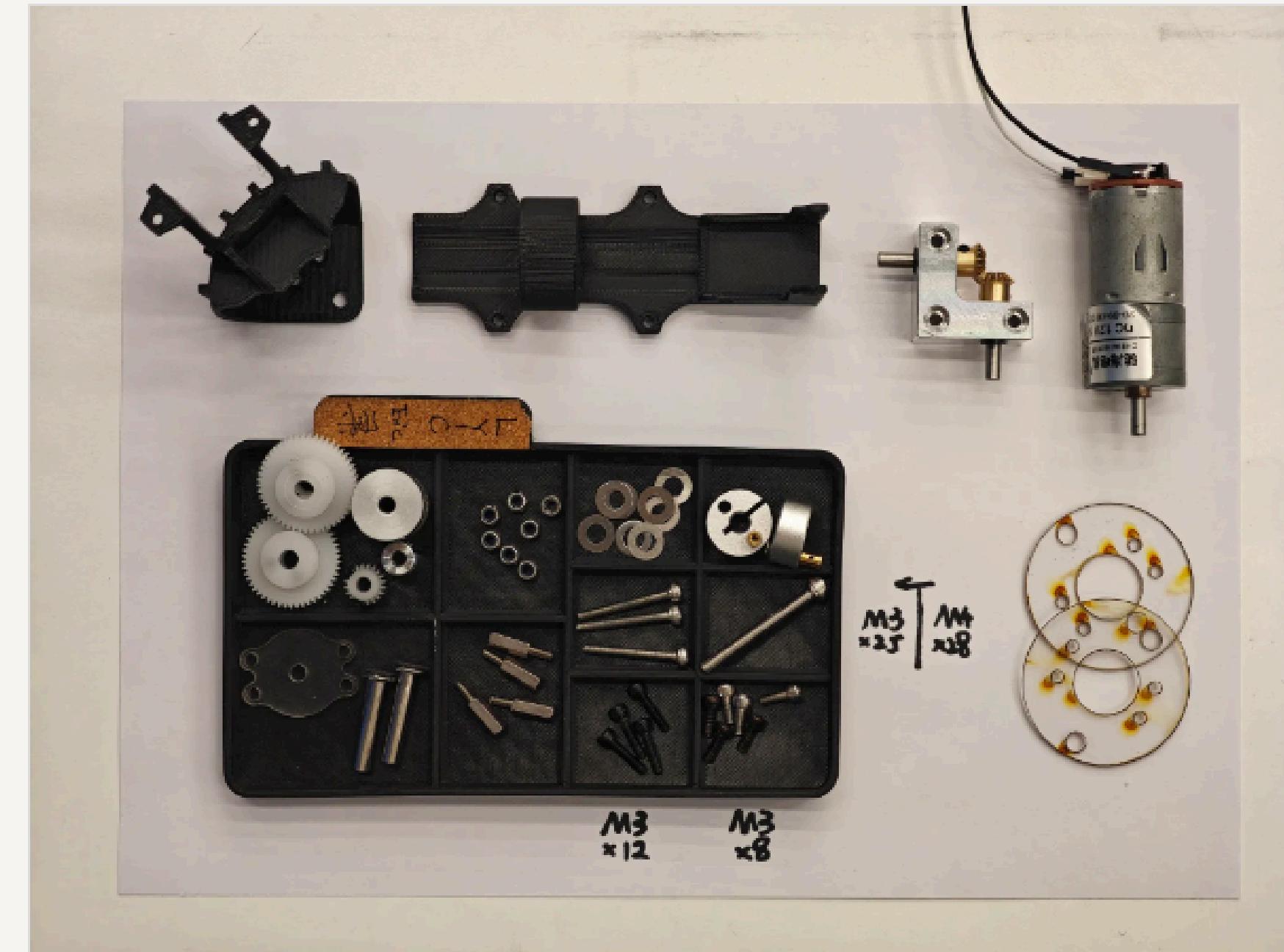
# PURCHASE COMPONENTS AND REIMBURSEMENTS



- Determine which components you need to purchase and specify the specifications for each component.
- Contact the Teaching Assistant (TA) by email or in the WhatsApp group to check if we have the required items or similar ones available in the lab.
- If the items are not available, proceed to purchase them on your own. Make sure to request a receipt and keep it for your records (refer to the detailed guidelines on the webpage).
- Follow the reimbursement procedures outlined in the reimbursement guide on the website.



# DEMO DISASSEMBLE

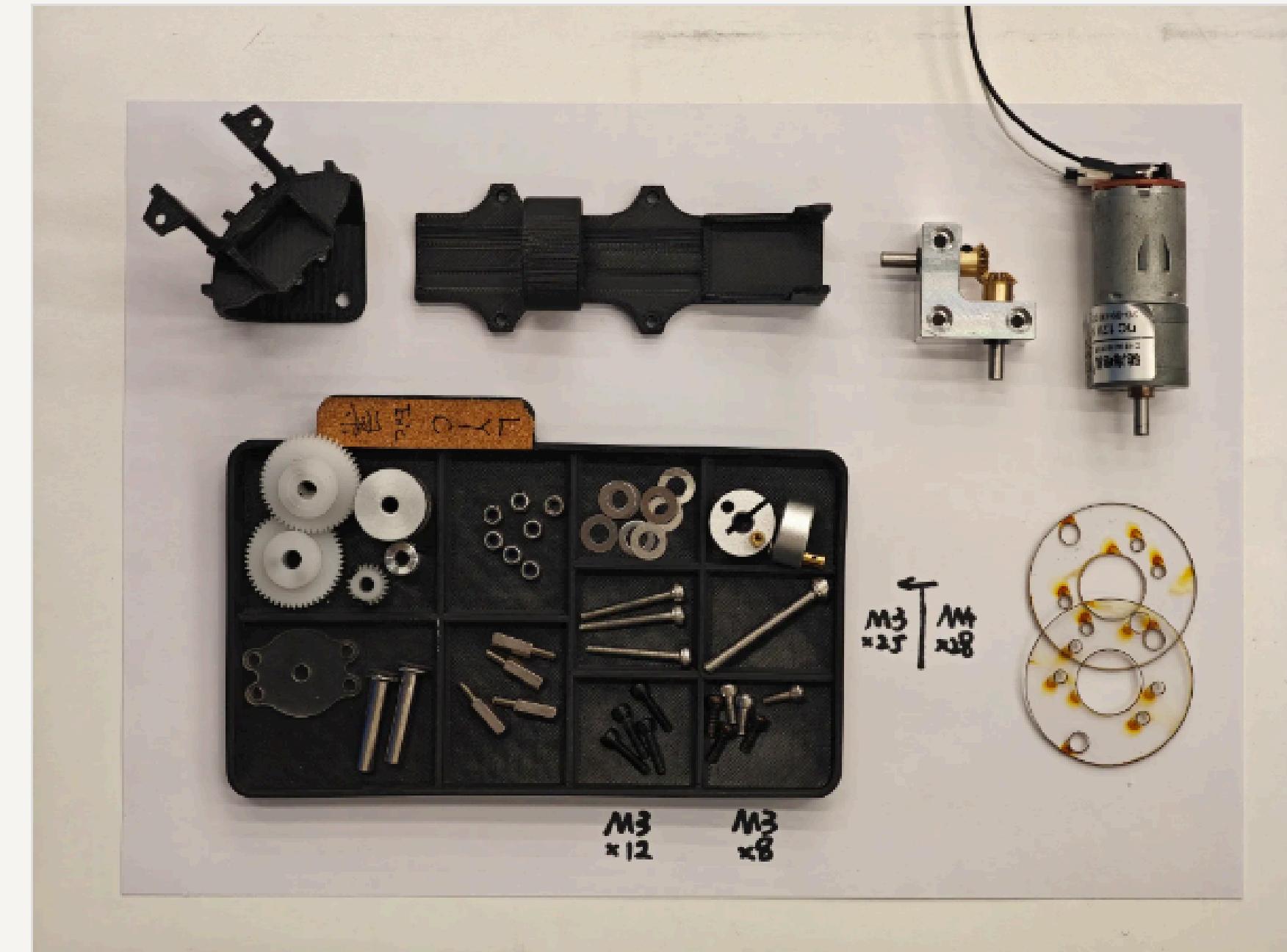


## Lab (LA1) 6 | Notion

### 0. Before the Lab

 [hkust-isdn2400 on Notion](#)

# DEMO SOLIDWORKS



## Lab (LA1) 6 | Notion

### 0. Before the Lab

 [hkust-isdn2400 on Notion](#)

# DC MOTOR CONTROL ASSIGNMENT

**DUE MAR 24TH MON 23:59**

You only need to show a working gearbox assembly for this lab.

- A video demo showing your working gearbox assembly
  - The gearbox assembly is assembled
  - The motor is rotating (either the motor is rotating or your hand is moving the shaft)
    - **Bonus** if you use the IOT control method that you learnt in the DC motor control Lab
  - The two larger gears are rotating as designed.

Detailed instruction are on Lab **Notion website page**, link can be found on Canvas  
<https://hkust-isdn2400.notion.site/assembling-lab>