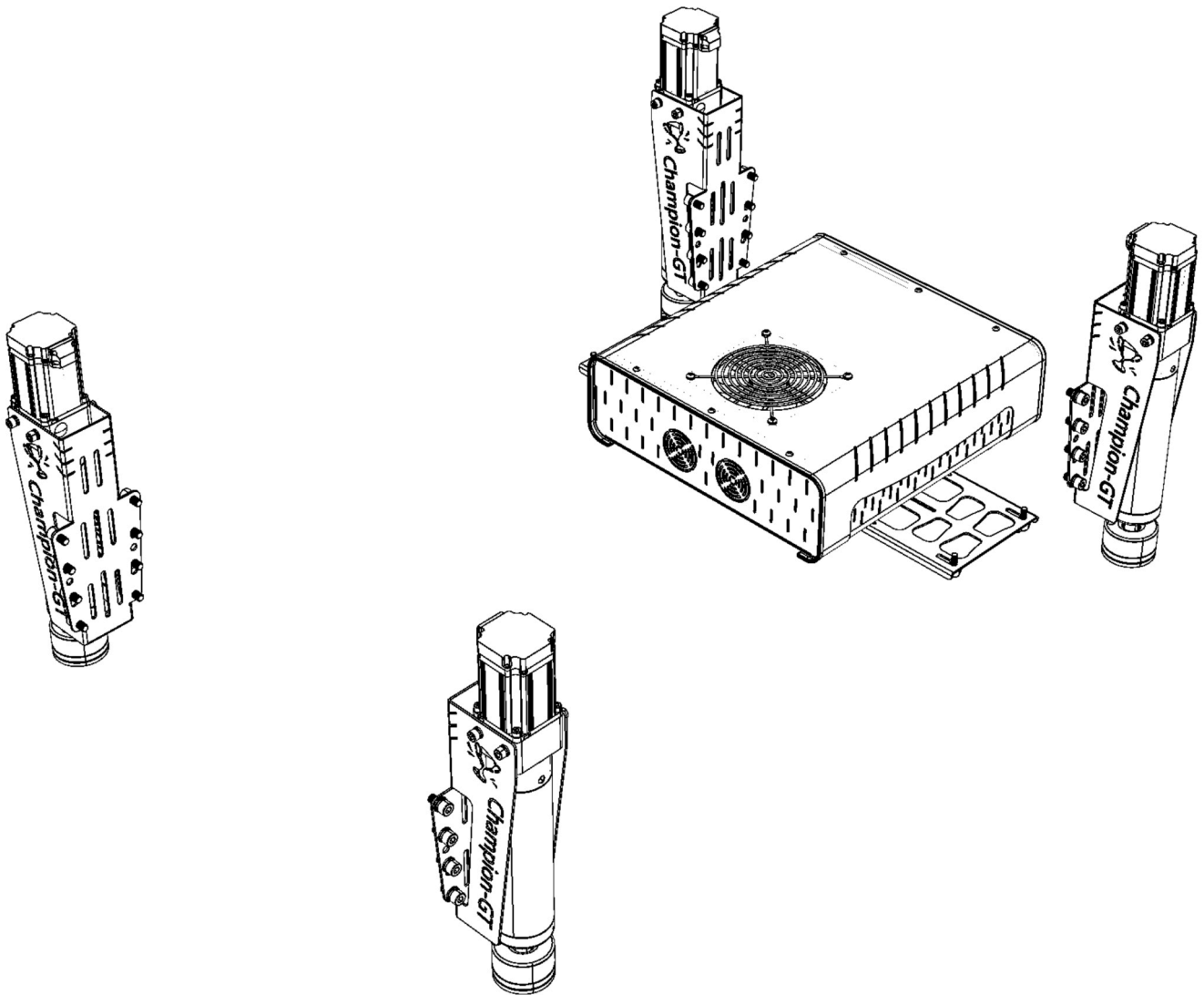


# Champion GT

## Installation Guide



## Before you start

Thank you for choosing the PT-Actuator. This manual provides step-by-step instructions for the proper installation of your system. Please read these instructions carefully before beginning the installation process. Improper installation can lead to damage to the actuator or system, and may void your warranty.

### Safety Precautions:

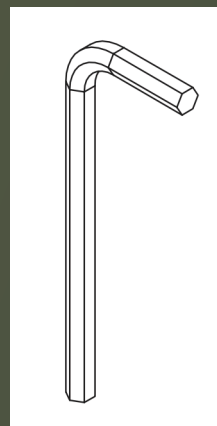
**Power Off:** Always disconnect power to the system before installing or servicing the actuators.

**Proper Tools:** Use only the correct tools for the installation process.

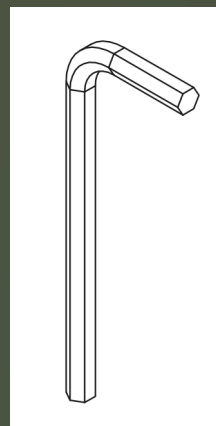
**Handling:** Handle the actuators with care. Avoid dropping or subjecting them to excessive force.

**Wiring:** Ensure all wiring connections are secure.

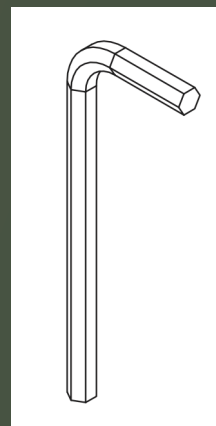
Tools needed:



5mm

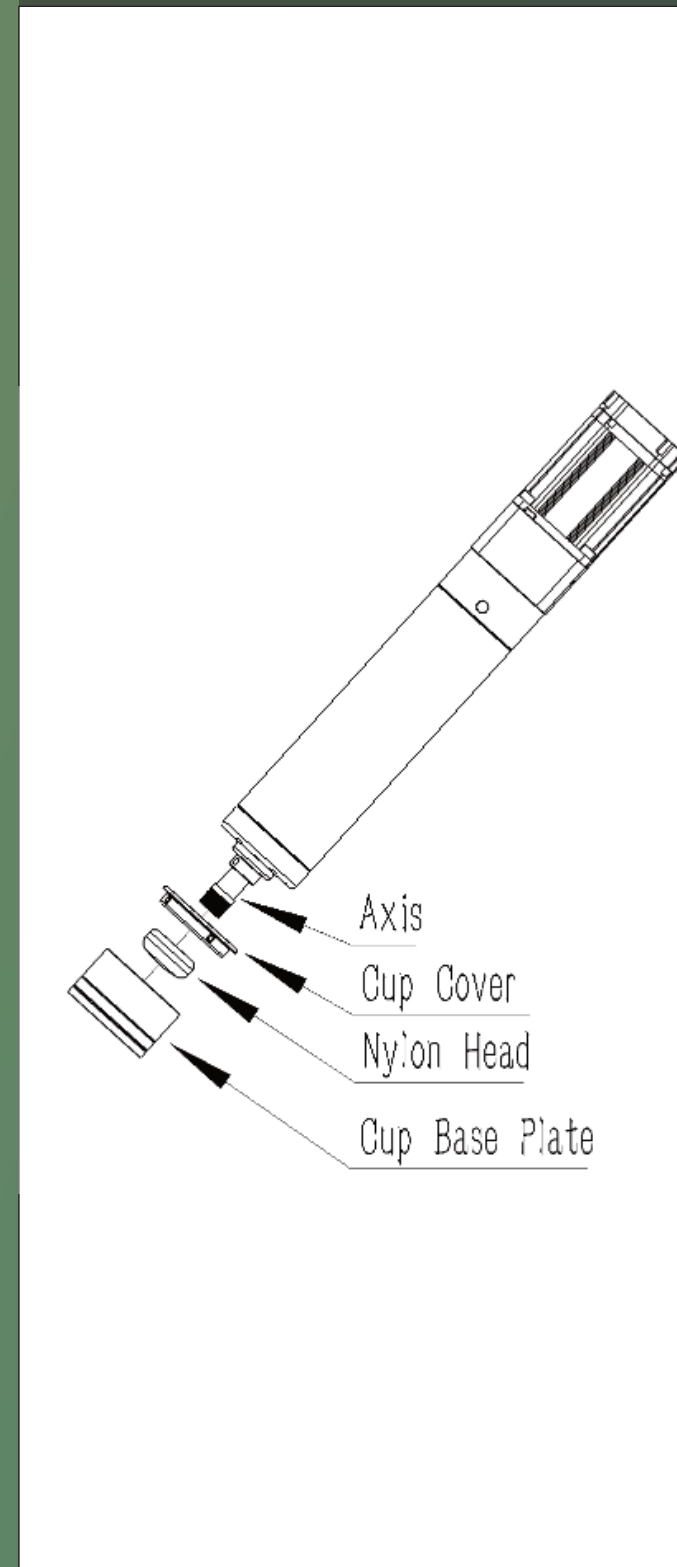


6mm



8mm

## CUP AND ACTUATOR ASSEMBLY



Slip the Cup Cover over the Axis and then screw on the Nylon Head to the end of the Axis.

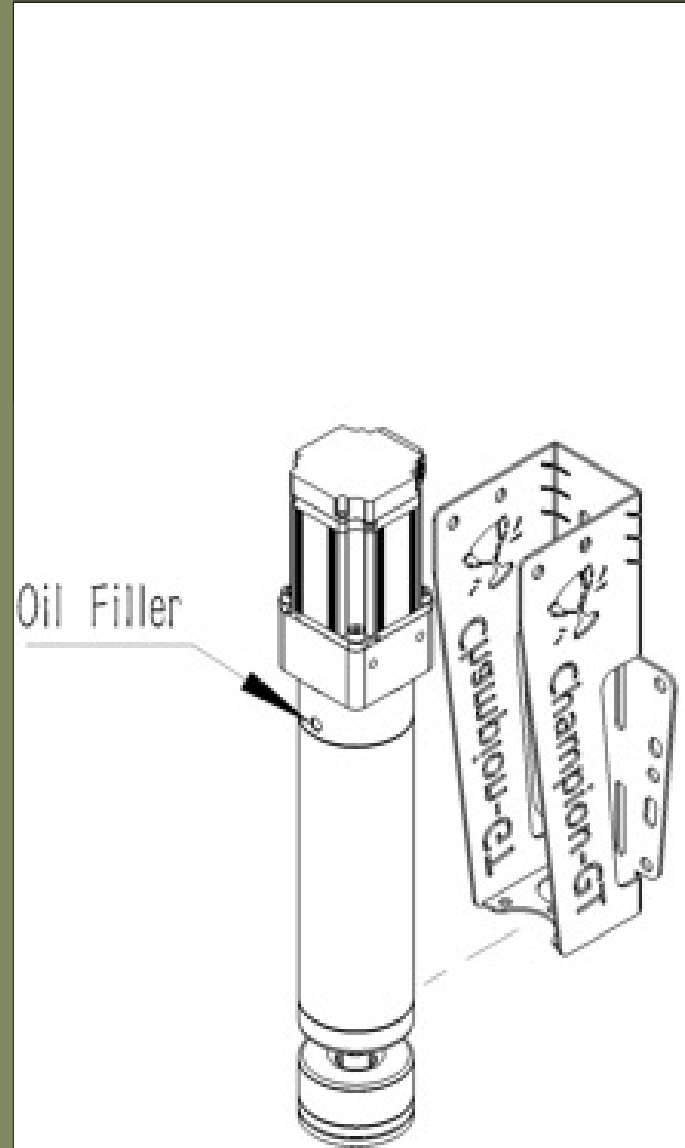
Clip the Cup Base Plate and Cup Cover together.

The Cup Cover and Cup Base Plate are press fit and do not need to be fixed with bolts



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U-SHAPED BRACKET AND ACTUATOR ASSEMBLY

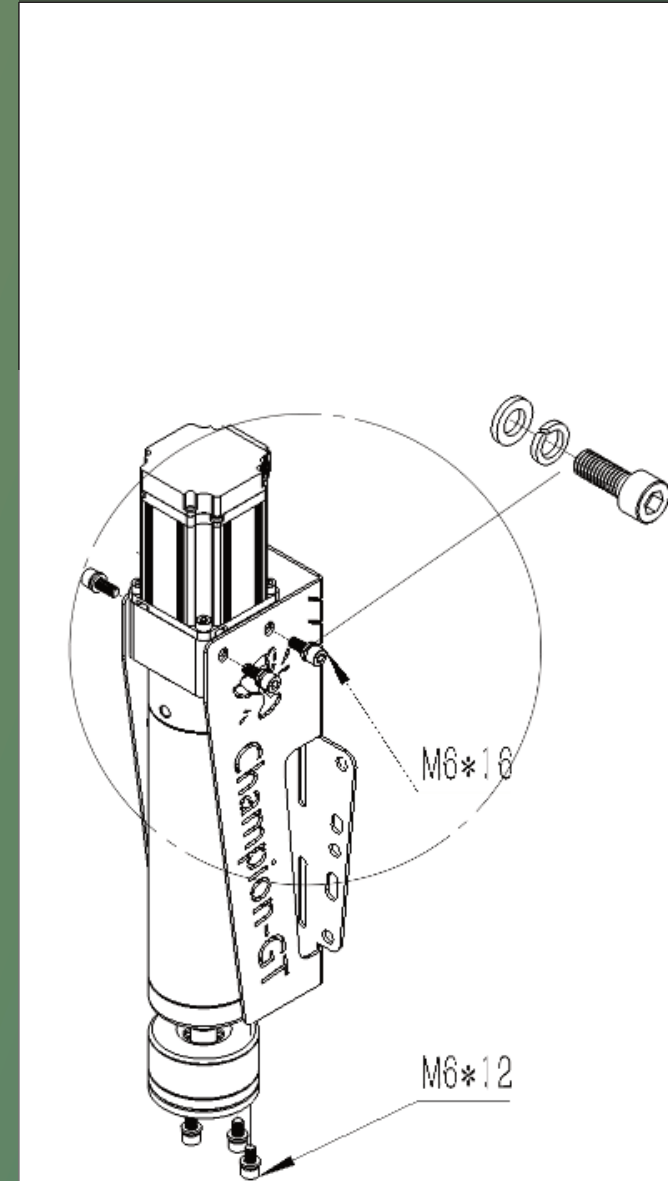


Align the two M6 threaded holes on each side of the Actuator with the holes in either side of the U-Shaped Bracket.

Align the three M6 threaded holes on the bottom of the Actuator with the holes in lower portion of the U-Shaped Bracket

*The Oil Filter should face outward as depicted, to facilitate wiring and maintenance*

SECURELY FIX THE U-SHAPED BRACKET & ACTUATOR



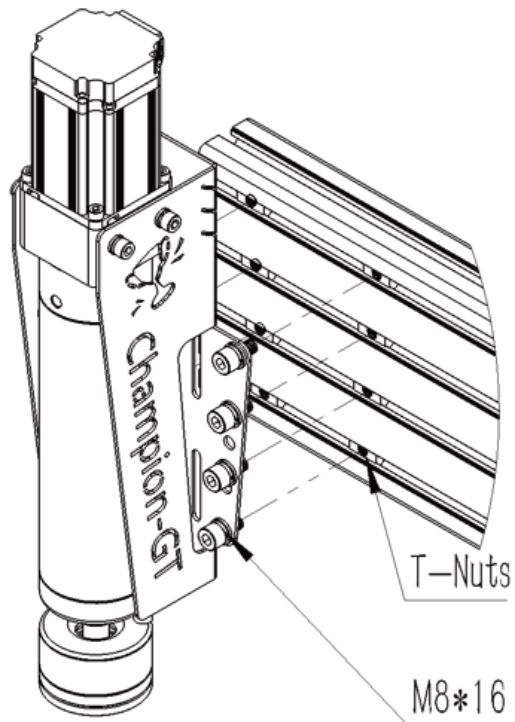
Two M6x16mm are installed through each side of the U-Shaped Bracket into the Actuator.

Three M6x12mm are installed through the bottom of the U-Shaped Bracket into the Actuator.

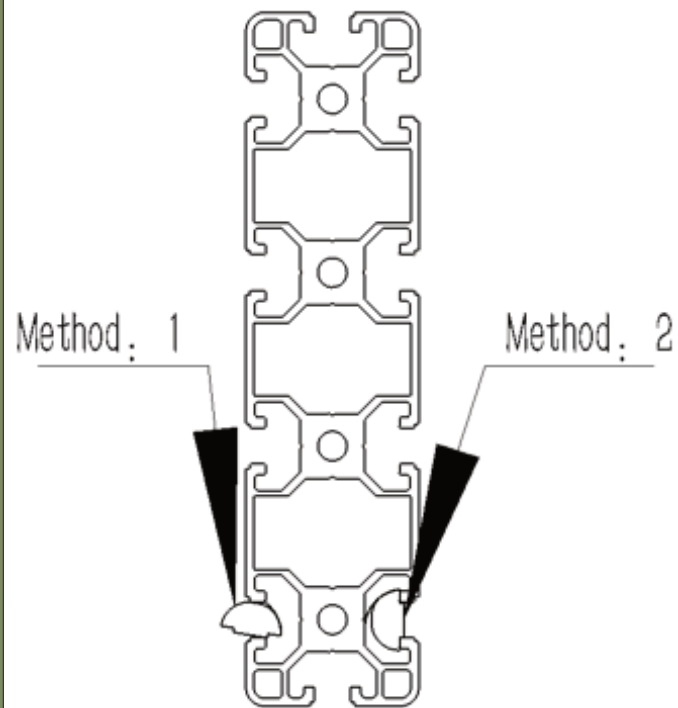
*Loosely fit all bolts to ensure proper alignment before fully tightening each bolt in turn*



Fasten the Actuator Kit to 40x160 Aluminium profile



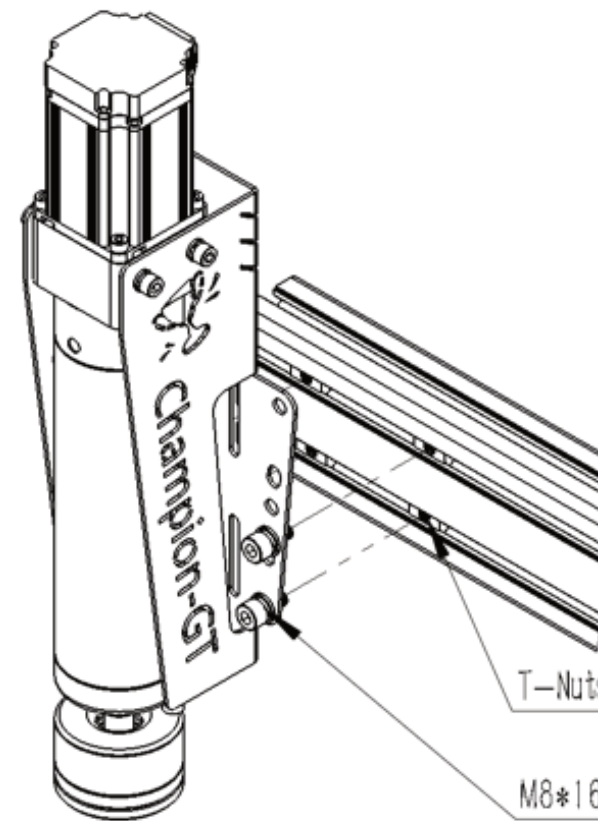
Install the eight T-Nuts into the profile slots  
Align the T-Nuts at the appropriate spacing  
Fix eight M8x16mm bolts to the T-Nuts securing the U-Bracket and Actuator to the side of the profile.



There are two ways to fix T-Nuts to Aluminium Profile:

1. Squeeze and rotate the T-Nut in from the side of the profile;
2. Slide the T-Nut in from the end of the profile

FASTEN THE ACTUATOR KIT TO 40X80 ALUMINIUM PROFILE

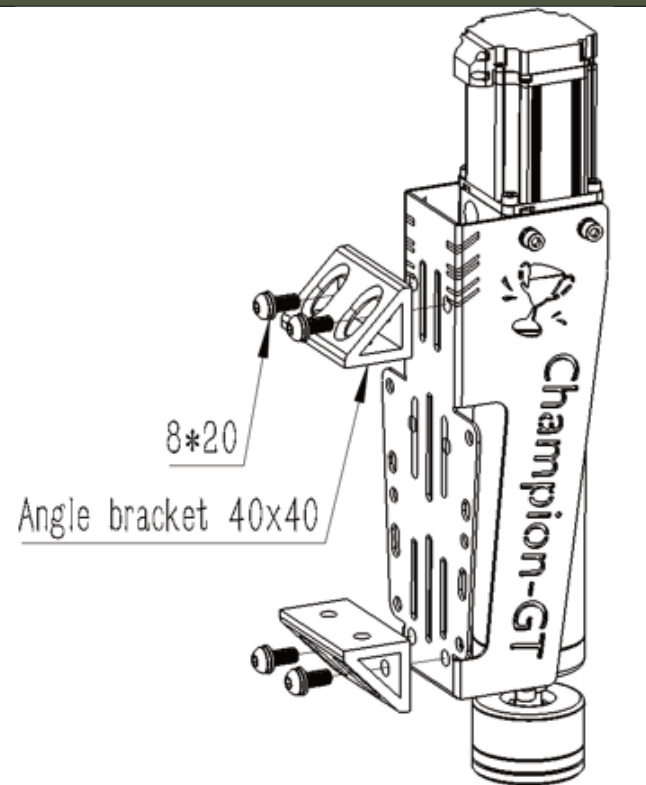


Install the four T-Nuts into the profile slots  
Align the T-Nuts at the appropriate spacing  
Fix four M8x16mm bolts to the T-Nuts securing the U-Bracket and Actuator to the side of the profile.



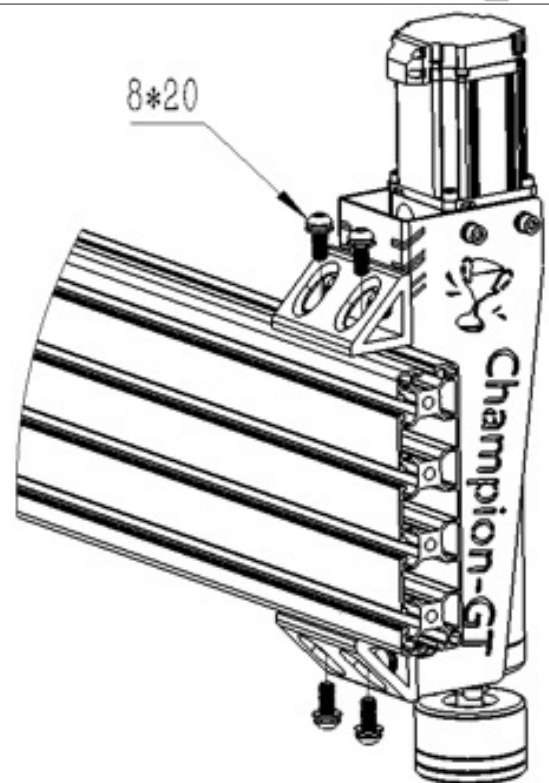


Fasten the Actuator Kit to 40x160 Aluminium profile (with angle brackets)



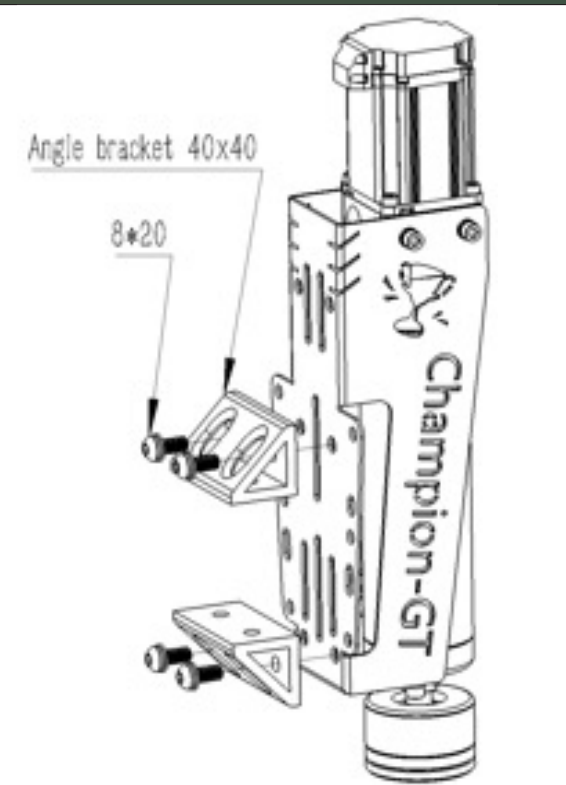
The first step is to pass four M8x20mm round head bolts through two 40X40 angel brackets secure them with the U-Shaped Bracket

*Loosely fit all bolts to ensure proper alignment before fully tightening each bolt in turn*



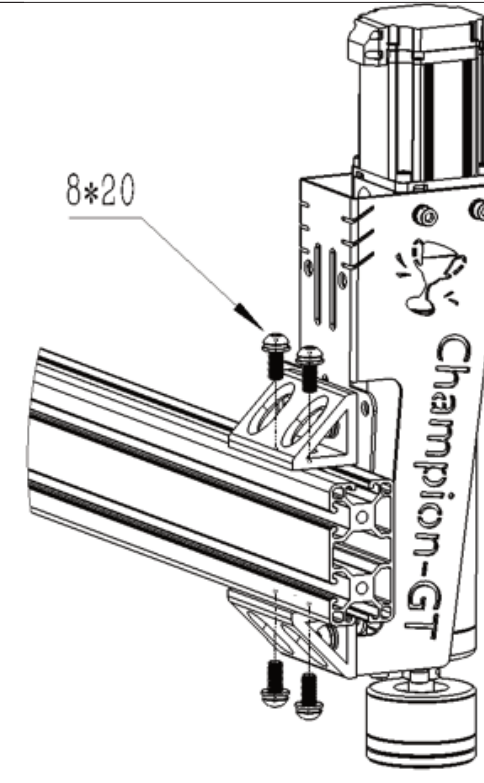
Install the four T-Nuts into the profile slots  
Align the T-Nuts at the appropriate spacing  
Fix four 8x20mm round head bolts to the T-Nuts securing the U-Bracket and Actuator to the profile  
Tighten all bolts firmly

Fasten the Actuator Kit to 40x80 Aluminium profile (with angle brackets)



The first step is to pass four M8x20mm round head bolts through two 40X40 angel brackets secure them with the U-Shaped Bracket

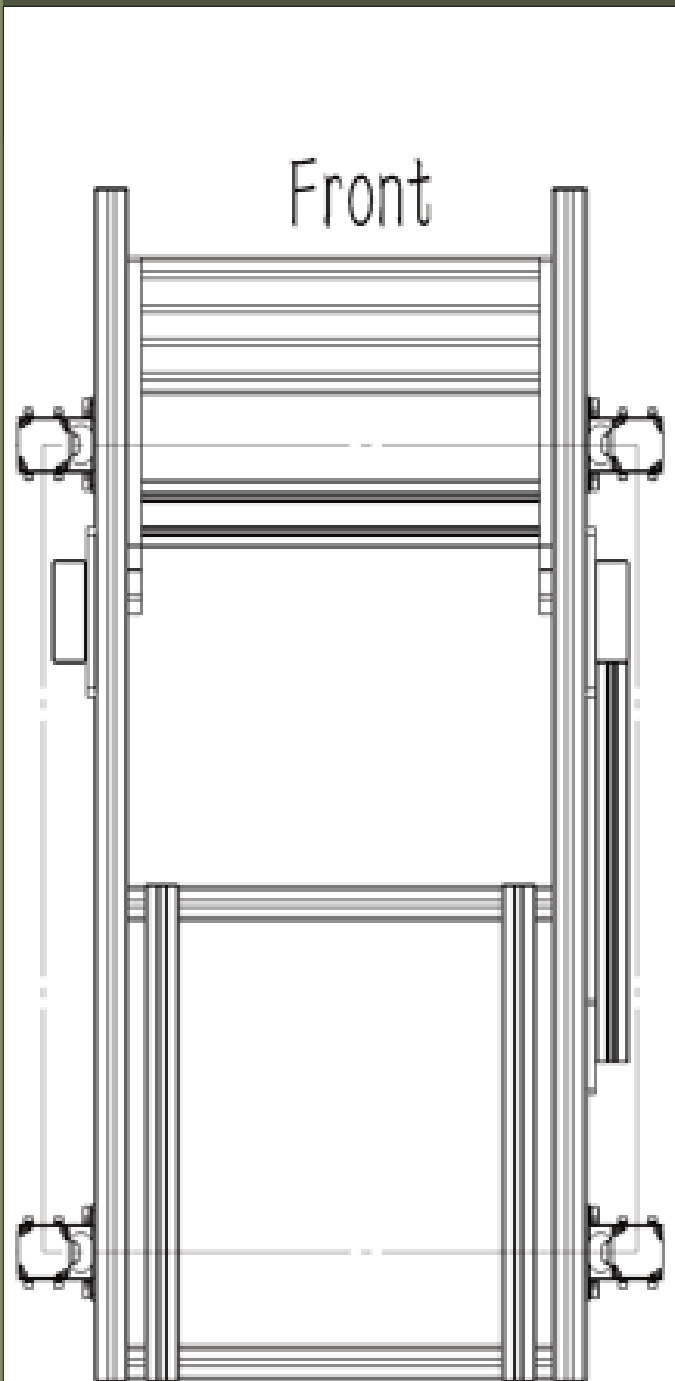
*Loosely fit all bolts to ensure proper alignment before fully tightening each bolt in turn*



Install the four T-Nuts into the profile slots  
Align the T-Nuts at the appropriate spacing  
Fix four 8x20mm round head bolts to the T-Nuts securing the U-Bracket and Actuator to the profile  
Tighten all bolts firmly



REPEAT THE STEPS TO INSTALL THE 4 ACTUATORS ON BOTH SIDES



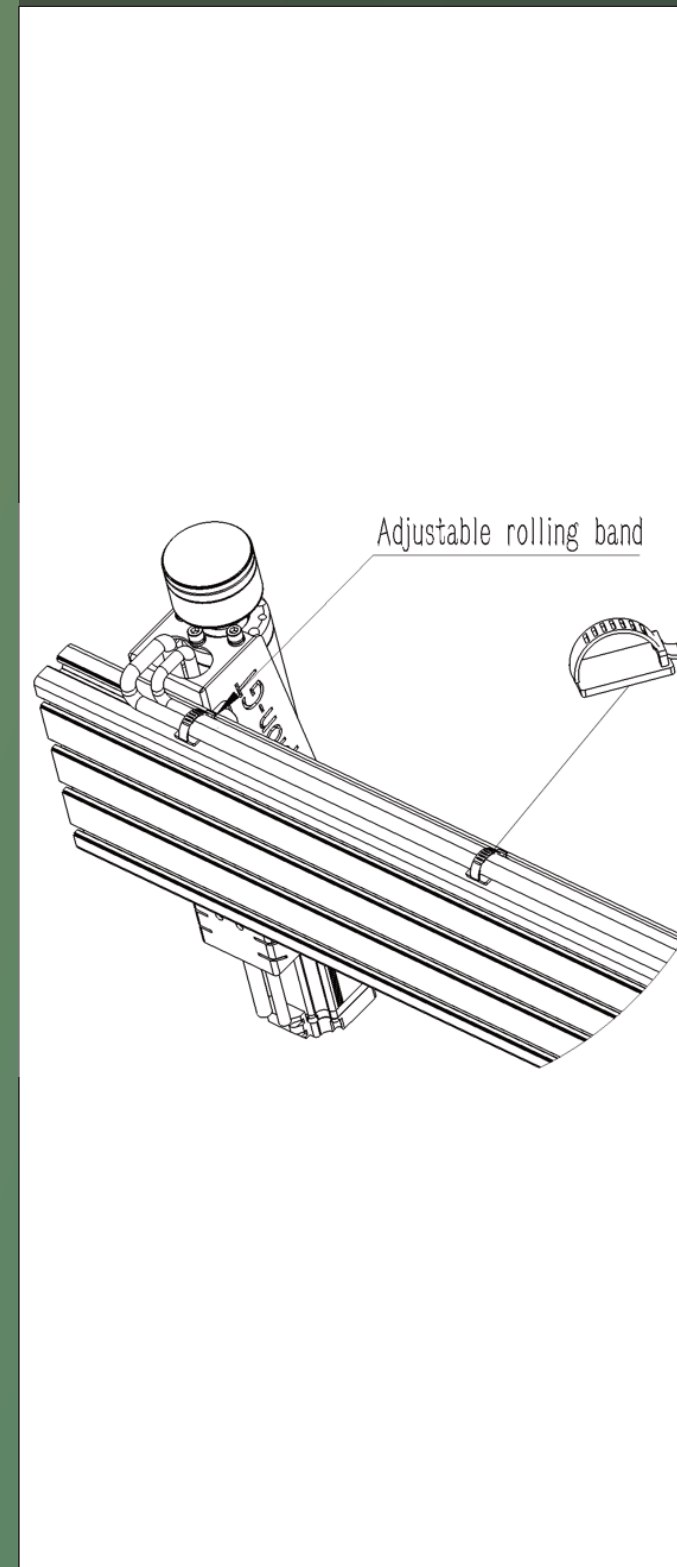
It is recommended that the rear actuators are situated as far back as possible, and the front actuators are at a distance not less than 950mm to the front of the rig.

All 4 actuators should be installed at the same height.

You may need to reposition the uprights if they interfere with the actuators, alternatively adjust the spacing to avoid interference.

*If the rig is not Aluminium Profile, Please enquire about bespoke brackets*

ROUTING OF POWER AND ENCODING LINES

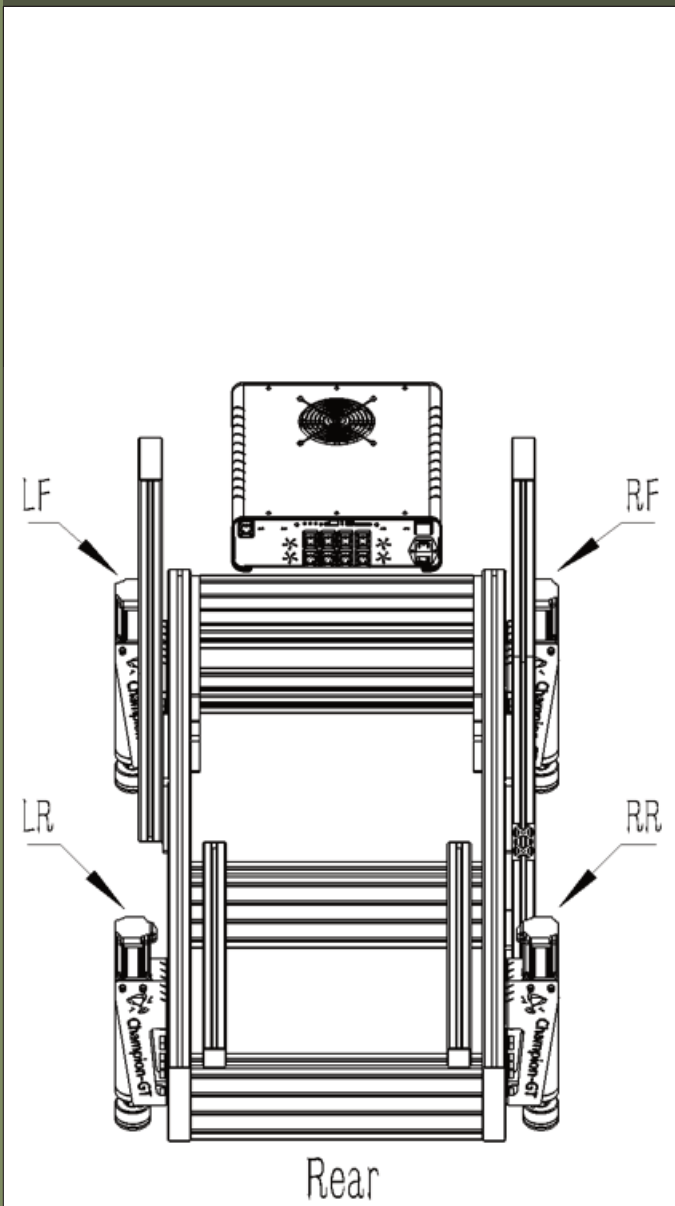


Install the self-adhesive adjustable band to the bottom of the Profile on both sides of the rig. Strap the power and encoder lines tightly on both sides of the rig



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INSTALLATION OF ELECTRIC CONTROL BOX (AT THE FRONT)



The layout of the cables is as follows:

- Left Rear - ID1
- Left Front - ID2
- Right Front - ID3
- Right Rear - ID4

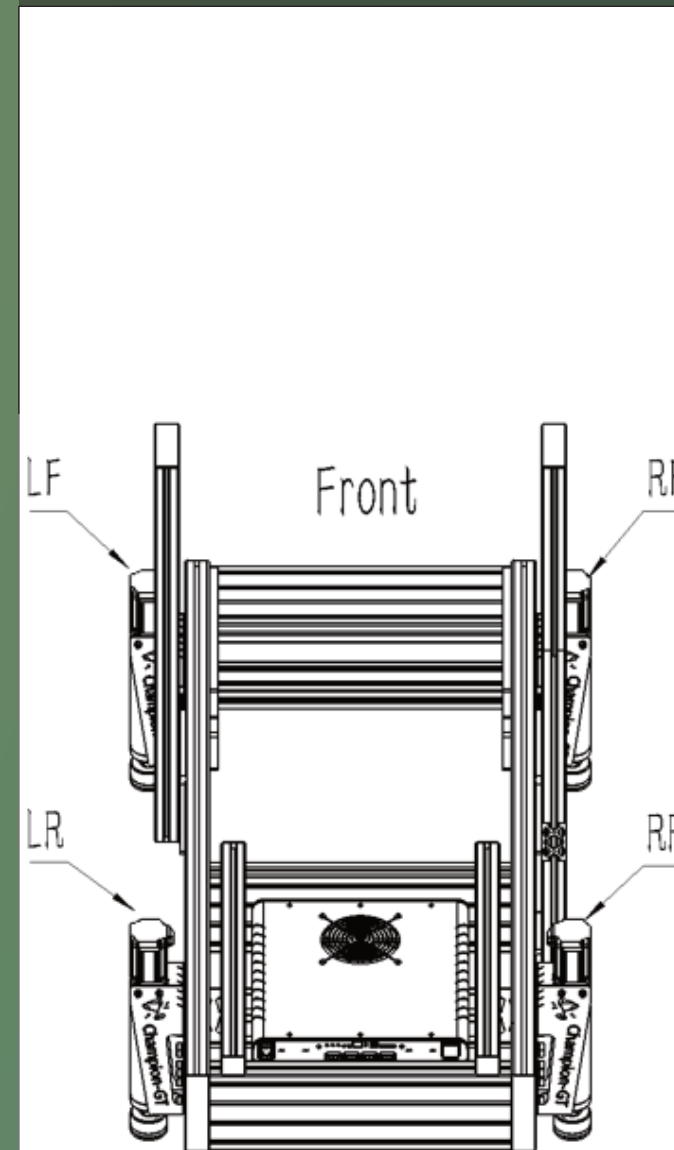
The cables are divided into two groups:

- Front actuators - 1m long
- Rear actuators - 2m long

Use the correct length cable for each actuator:

- ID1 - 2m
- ID2 - 1m
- ID3 - 1m
- ID4 - 2m

BUILT-IN INSTALLATION OF ELECTRIC CONTROL BOX (AT THE REAR)



The layout of the cables is as follows:

- Left Rear - ID1
- Left Front - ID2
- Right Front - ID3
- Right Rear - ID4

The cables are divided into two groups:

- Front actuators - 2m long
- Rear actuators - 1m long

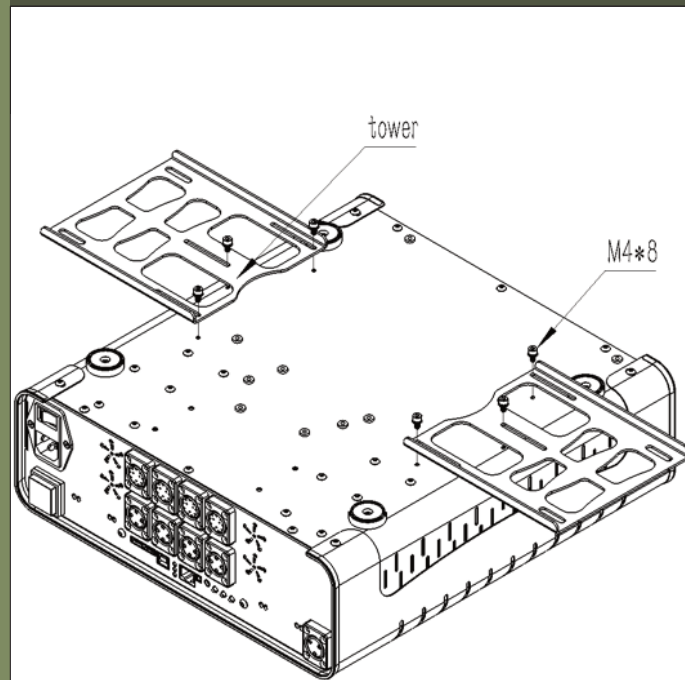
Use the correct length cable for each actuator:

- ID1 - 1m
- ID2 - 2m
- ID3 - 2m
- ID4 - 1m





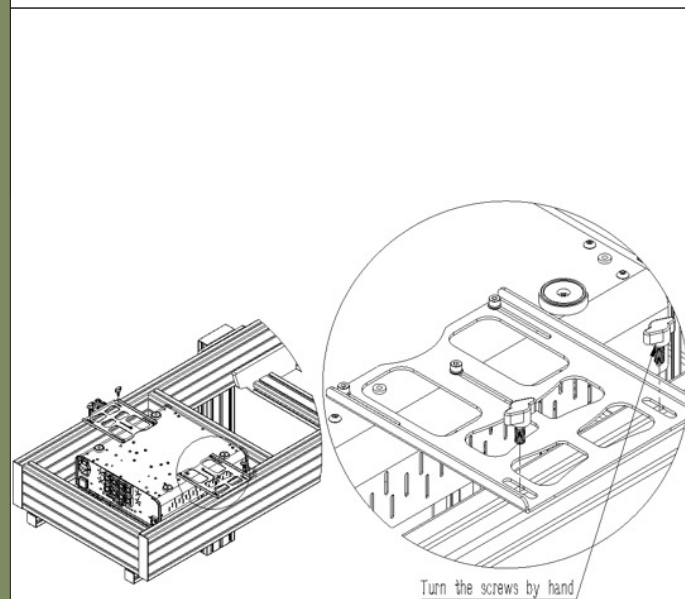
ELECTRIC CONTROL BOX INSTALLATION (AT THE REAR)



After turning the control box onto its lid, use three M4x8mm bolts to secure each brackets to the base

Position the brackets with the appropriate spacing for your rig before tightening

*These brackets are suitable for rig with a width of 500mm - 600mm*



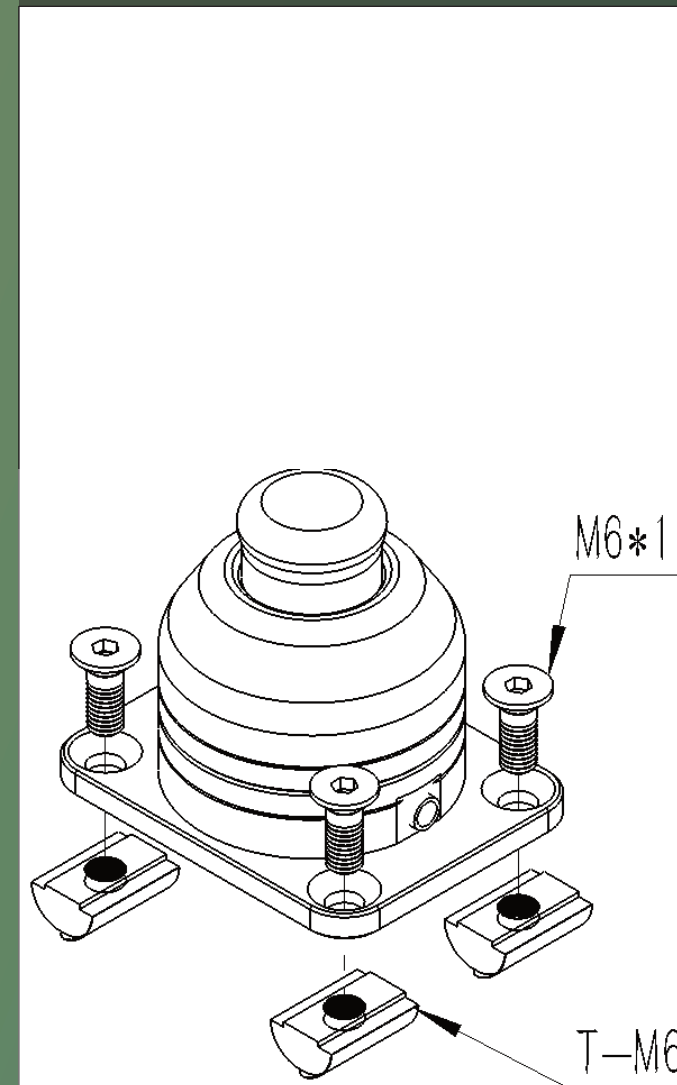
The control box should be installed underneath the rig.

Install two T-Nuts into the profile slots on each side

Align the T-Nuts at the appropriate spacing

Fix four hand screws to the T-Nuts securing the brackets and control box to the underside of the profile

INSTALL THE EMERGENCY STOP



Install four T-Nuts into the profile slots

Align the T-Nuts at the appropriate spacing

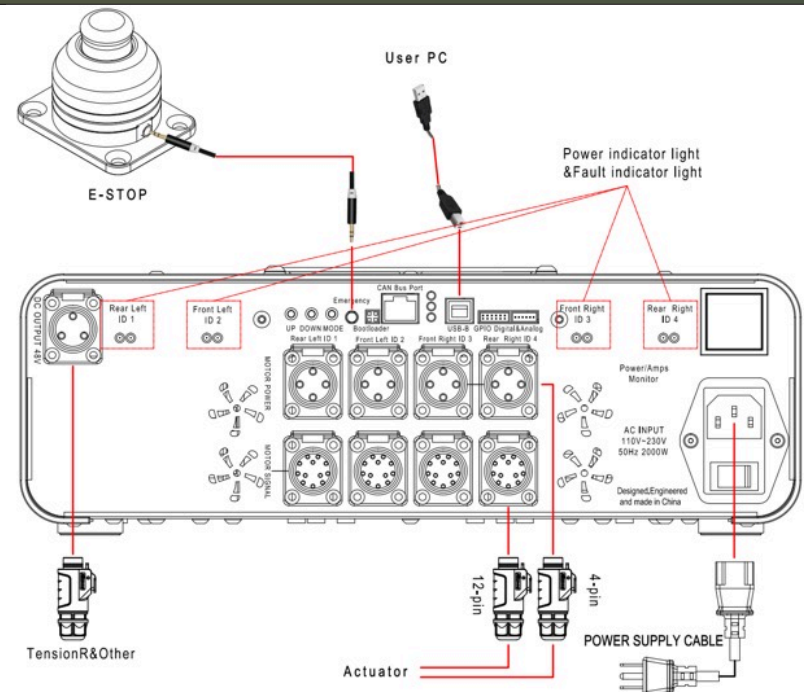
Fix four M6x16mm bolts to the T-Nuts securing the emergency stop to the underside of the profile

*The installation hole distance is 40mm, suitable for a variety of profiles*





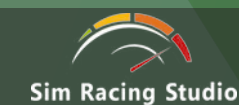
### Electric control box panel connection method



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- 1. Download SimHub:**  
Go to the official SimHub website: <https://simhubdash.com/>  
Click the "Download SimHub" button. This will download a zipped file to your computer.
- 2. Extract the Files:**  
Locate the downloaded zip file and extract its contents to a folder of your choice.
- 3. Run the Installer:**  
Inside the extracted folder, find the executable file (usually named "SimHub.exe") and double-click it to run the installer.  
Follow the on-screen instructions to complete the installation process.
- 4. Install Device Drivers (if needed):**  
If you plan to use external displays or devices with SimHub, you'll likely need to install the necessary drivers.  
SimHub provides a "Device Driver Installation" section in its resources menu to help you find the correct drivers for your devices.
- 5. Launch SimHub:**  
Once the installation is complete, you can launch SimHub from your start menu or the installation folder.
- 6. Configure SimHub:**  
Upon launching SimHub for the first time, you'll be greeted with a list of supported racing simulators.  
Select the simulators you have installed on your computer.  
Explore the SimHub interface to familiarise yourself with its features and settings.
- 7. Get a License (Optional):**  
SimHub is free to use, but you can choose to donate to support its development and get a license.  
The licensing process is straightforward and can be done through the SimHub website.



- 1. Download Sim Racing Studio:**  
Visit the official Sim Racing Studio website: <https://www.simracingstudio.com/>  
Navigate to the "Downloads" section.  
Download the latest version of Sim Racing Studio.
- 2. Install Sim Racing Studio:**  
Locate the downloaded installer file and run it.  
Follow the on-screen instructions to complete the installation process.
- 3. Configure Sim Racing Studio:**  
Launch SRS: Once installed, launch Sim Racing Studio.  
Hardware Setup: Go to the "Setup" tab and configure your hardware. This includes:  
Motion: Select your motion platform type (PT-Actuator) and configure its parameters.  
Game Setup: Go to the "Games" tab and select the racing simulators you have installed. SRS will guide you through the necessary setup for each game. This often involves enabling shared memory or UDP telemetry in the game's settings.  
Profiles: Create or load profiles for different cars or tracks to fine-tune your motion feedback.





If you still have some questions regarding assembly of this product or about the manual itself, please refer to our support department. They can be reached at

support@pt-actuator.com | support@pt-actuator.co.uk



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 +86 181 6875 0685

 +86 516 8708 6650

 <http://www.pt-actuator.com/>

 [ptactuator@gmail.com](mailto:ptactuator@gmail.com)