

# Flight Simulator Add-on Kit

## Configuration #11

### Helicopter Collective Universal Mount Bracket Assembly And Optional Accessories



Assembly instruction manuals available at:

V2.3 110124

<http://bit.ly/ow-manuals>

by **SimFab<sup>®</sup>**.com

# WARNINGS:



Proceed with caution and extra attention when warning signs are present during installation instructions manual.



If your item is damaged, defective or missing parts, please contact us first directly at Email: [info@SimFab.com](mailto:info@SimFab.com) or Toll Free: **1-888-299-2746**

As the manufacturer, our knowledge of your new product ensures that we will be able to assist you promptly and accurately.

For invoices and other price information, please refer to your market place account for more details. Alternatively, you can always email us at [info@SimFab.com](mailto:info@SimFab.com)

# Table of Contents

|  |    |
|--|----|
| SimFab Modular Flight Simulation Concept And Design.....                       | 5  |
| Flight sim add-ons, modular design introduction.....                           | 11 |
| Parts list.....  | 24 |
| Installation.....  | 26 |
| WinWing collective installation.....   | 29 |
| Collective adjustment.....   | 31 |
| Collective with short grip (WinWing).....                                      | 32 |
| Extra long grip (Apache).....  | 32 |
| VirPil collective installation, Apache grip, counterweight spring kit.         | 33 |
| Adjustment.....  | 37 |
| Cable management and breaking apart cockpit for storage or moving it away..... | 39 |
| Installation and use of flight sim add-ons to DD frame (chassis)...            | 41 |
| Specifications, Warranty, Terms and Conditions.....                            | 45 |

## Explore the Ultimate in Simulation with SimFab: Where Innovation Meets Immersion

At SimFab, we're redefining the world of simulation with our cutting-edge Modular Racing and Flight Sim Concepts and Designs.

Dive into an unparalleled realm of fidelity, realism, and immersion with our bespoke cockpits, meticulously crafted to mirror the intricate layouts of real aircraft and race cars.

We prioritize your comfort, offering modular, fully compatible setups that adapt seamlessly to all major brands and control makers. Starting with affordable yet uncompromised quality base models, our products cater to both novice pilots eager to explore flight simulation and seasoned racers seeking upgradeable, interchangeable designs for a tailored experience.

Join us on a journey where every detail is designed with precision, ensuring a simulation experience that's as thrilling as it is authentic.



SimFab introduces several base models as follows:

Combat sim modular flight cockpit, **DCS World edition**

General aviation modular flight cockpit, **Trainer edition**

Civil aviation modular cockpit, **MSFS edition**

Civil, combat and space sim modular cockpit, **Hybrid edition**

Civil or combat sim modular cockpit, **Rotor-craft edition**

The SimFab modular flight sim trainer station is a state-of-the-art training system designed to optimize cognitive memory and provide full compatibility with high-end flight simulation controls. It offers precise user adjustment options and the ability to hot swap between panels and controls for a customizable and efficient training experience.



**DCS edition**



**Trainer edition**

Base package combines several flight sim add-on modules. For compatibility refer to flight sim add-on kit configurations #2, #4, #6



**MSFS edition**

Base package combines several flight sim add-on modules. For compatibility refer to flight sim add-on kit configurations #4, #5



**Hybrid edition**

Base package combines several flight sim add-on modules. For compatibility refer to flight sim add-on kit configuration #1



SCAN TO ORDER



<https://bit.ly/simfabddckit>

### DD sim racing conversion kit

Convert your flight sim pit to sim racing setup and hot swap between each setup in seconds

Requires Gen3 base chassis.

### Modular flight pit add-ons Introduction

**⚠ Please read introduction carefully in order to understand modular design concept and learn about available flight sim options (configurations).**

We have incorporated simplicity, dynamic adjustment and rigidity, making your conversion effortless between different flight sim setups or sim racing, and vice versa. All controls are hard-mounted for maximum strength, handling the most aggressive pilot there is.

Our flight sim mounting brackets are compatible with all brands such as Thrustmaster, Saitek, CH Products, Logitech, VKB, WinWing, MFG, VirPil, Turtle Beach, Honeycomb, Slaw and others. We constantly update our designs, mounting patterns and hardware along with all newly introduced flight sim controls. For controls not mentioned within the list, please reach out to us for additional instructions or custom solutions.

We offer several flight sim add-on options based on commonly used and most desired setups, so called "**configurations**". Order of configuration numbers is based on the time of which each was developed, where some options can be used independently such as configurations #1, #2, #5, #8 and rest configurations compliment the flight setup depending on controls being used. All configurations are offered as "Add-on" kits as they require base model cockpit. Dedicated flight pits include group of said configurations as specified.



## Flight sim Add-on configuration #1, combat or commercial aviation flight sim HOTAS style, side by side mounted throttle and stick.

Brackets and adapter plates are compatible with the following brands and models flight sim controls:

1. Logitech/Saitek X52, X52 Pro, X56
2. Thrustmaster T16000M stick and throttle
3. Thrustmaster HOTAS T.Flight stick and throttle
4. Thrustmaster TCA Airbus
5. Hori stick and throttle
6. CH Products stick and throttle
7. VKB Gladiator Stick
8. Turtle Beach Velocity One Stick



SCAN TO ORDER



<https://bit.ly/simfabhybrid>

## Flight Sim add-on configuration #2, combat aviation flight sim HOTAS style, side by side mounted throttle and stick.

Brackets and adapter plates are compatible with the following brands and models flight sim controls:

1. Thrustmaster Warthog stick and throttle
2. VirPil Sticks, throttles, control panels
3. WinWing stick bases and Orion throttle
4. VKB Gunfighter stick

SCAN TO ORDER



<https://bit.ly/simfabhotas>



**Flight Sim add-on configuration #3, centered stick standard mount bracket. Requires either configuration #1 or Configuration #2.**

Centered stick standard mount bracket provides quick and convenient conversion from racing wheel to flight stick by sharing same steering post. While config. #3 can be used in combination with either config. #1 or #3 we recommend it for #1 where stick base height adjustment is not necessary below knee level.



Configuration #1 + #3  
Thrustmaster T.Flight



Configuration #3

<https://bit.ly/simfabhotascenterstick>



SCAN TO ORDER



Configuration #2 + #3  
Thrustmaster Warthog

**Flight Sim add-on configuration #4, rudder pedals plate.**

Configuration #4 consists of dedicated rudder pedal plate and shaft connected to seat frame. Rudder pedals are optional for lower end flight sticks within configuration #1 family, with built in yaw movement by twisting flight stick grip. Rudder pedal plate is required with higher end flight controls within configuration #2 family where rudder pedals are used for yaw movement and ground braking. Rudder pedal plate is pre-drilled to accept all rudder pedals hard mounted. Included in the package is various mounting hardware compatible with the following rudder pedals:

1. VKB
2. MFG Crosswind
3. VirPil Ace Flight/Torq/WarBrd
4. Thrustmaster TPR/TFPR
4. Logitech Pro Flight
5. CH Products
6. Slaw device
7. WinWing Skywalker

<https://bit.ly/simfabrudderplate>



SCAN TO ORDER



## Flight Sim add-on configuration #5, civil and commercial aviation simulation package.

Configuration #5 consists of rudder pedal plate (config. #4), mounting brackets and adapter plates for various yokes and throttle quadrants. Our proprietary design of how controls are being mounted unifies adapter plates for all leading brands yokes and throttle quadrants with maximum rigidity and leg clearance.

Configuration #5 is compatible with the following yokes and throttle quadrants:

1. Honeycomb Alpha yoke and Bravo throttle quadrant
2. Turtle Beach Velocity One yoke and throttle quadrant
3. Logitech/Saitek yoke and single/dual throttle quadrant with optional Flight Velocity Trim Wheel
4. CH Products yoke and throttle quadrant

**⚠️** Thrustmaster TCA yoke and single/dual quadrant Boeing edition requires separate kit.

<https://bit.ly/simfabcommers>



SCAN TO ORDER



## Flight Sim add-on configuration #6, centered flight stick lower mount bracket.

Configuration #6 is a specially designed bracket for flight sticks with need of precise and long range of height adjustment. Lower mount bracket provides lowest height level of adjustment of stick base to accommodate flight sticks typically within configuration #2 with removable grips, where grip extension is added between standard grip and stick base. Major benefits are precise height placement of stick grip in accordance with various grip extensions for better stick control or when grip is used as helicopter simulation cyclic. Lower mount bracket can be used whether stick grip is used with extension or without.

**⚠️** Kit does not include adapter plates. Adapter plates are included in Configurations #1 and #2

Typically used (not limited to) with following flight sticks:

1. Thrustmaster Warthog stick
2. VirPil Sticks
3. VKB Gunfighter stick
4. WinWing Super Libra Stick



SCAN TO ORDER

<https://bit.ly/simfablowerstick>



## Flight Sim add-on configuration #7, flight stick grip extension kit.

Proprietary design grip extension kit offering full range of grip extension from 2.75" (70mm) short to 7.5" (190mm) long. Package includes adapters, extensions, extension cables and all hardware, ready to use right out the box. All anodized and machined billet aluminum for light, and yet strongest material.

Grip extension is compatible with the following stick grips:

1. All Thrustmaster Warthog based grips
2. VirPil stick grips
3. WinWing stick grips



<https://bit.ly/simfabgripext>

SCAN TO ORDER



**Total of 70mm to 190mm (2<sup>3/4</sup> - 7<sup>1/2</sup> in.) grip extension  
all in one kit**

## Flight Sim add-on configuration #8

Complete package for GA aviation, Thrustmaster TCA Boeing

Edition: yoke, throttle quadrant, rudder pedals  
configuration #9

Thrustmaster TCA Boeing yoke bracket only



### Complete package

SCAN TO ORDER



<https://bit.ly/simfabboeingcompl>

### Yoke bracket only

SCAN TO ORDER



<https://bit.ly/simfabboeingbronly>

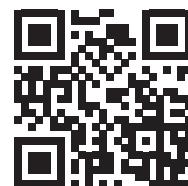
## Flight Sim add-on configuration #10

### Advanced Modular Side Mount "AMSM"

Compatible with WinWing Super Taurus throttle, take of / combat panels, VirPil control panels.



SCAN TO ORDER



<https://bit.ly/simfabamsm>

## Flight Sim add-on configuration #11

### Helicopter Collective Universal Mount Bracket

Compatible with WinWing, VirPil and Komodo helicopter collectives



SCAN TO ORDER



<https://bit.ly/hellicollective>

## Flight Sim add-on configuration #12

### Main Instrument Panel: MFD/UFC/ICP/HUD Holder

Compatible with WinWing MIP F18, Thrustmaster Cougar MFDs, SimGears ICP



SCAN TO ORDER

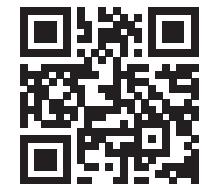


<https://bit.ly/maininstpanel>

## Flight Sim add-on configuration #13

### Advanced Modular Side Mount

SCAN TO ORDER



<https://bit.ly/amsm>



## Flight Sim add-on configuration #14

Extended upper L bracket for dual side control mount



Included in the kit  
is adapter plate  
of choice with  
appropriate controls  
mounting hardware



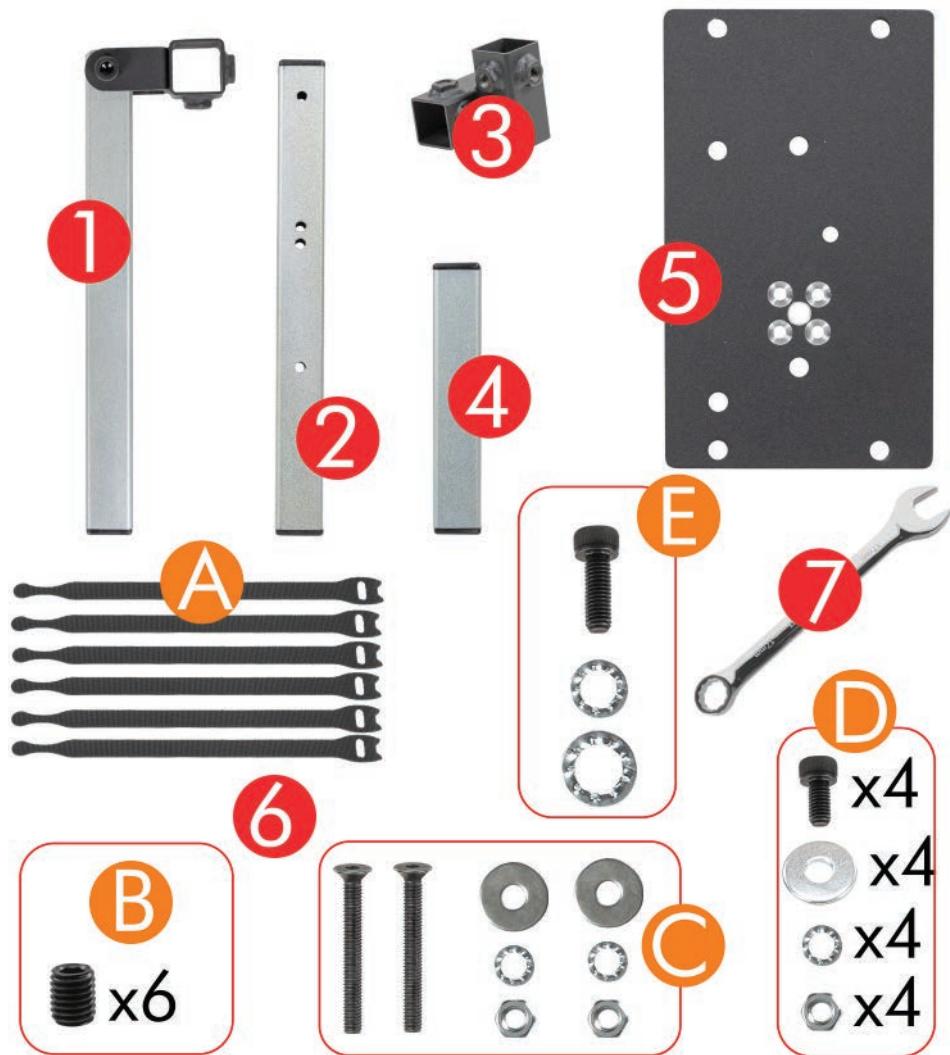
SCAN TO ORDER



<https://bit.ly/UpperL>

## Parts list

1. Pivot bracket assembly
  2. Collective arm bar
  3. 4way coupler
  4. Short connecting bar
  5. Collective universal plate
  6. Hardware
    - A. Cable management tie wraps (6)
    - B. M10x12mm set screws (6)
    - C. Plate mounting hardware:  
M6x40mm bolts (2), wide washers (2), lock washers (2), nuts (2)
    - D. WinWing collective mounting hardware:  
M6x15mm bolts (4), washers (4), lock washers (4), nuts (4)
    - E. VirPil collective base M8 retaining tooth washer.  
VirPil collective counterweight spring kit bolt: M5x15mm and  
M5 tooth washer.
  7. 8mm flat open wrench
- Use tools included in base package SimFab cockpit, not included in this kit
1. 17mm open wrench
  2. 10mm open wrench
  3. 8mm Allen key
  3. 5mm Allen key
  5. 4mm Allen key



## Installation

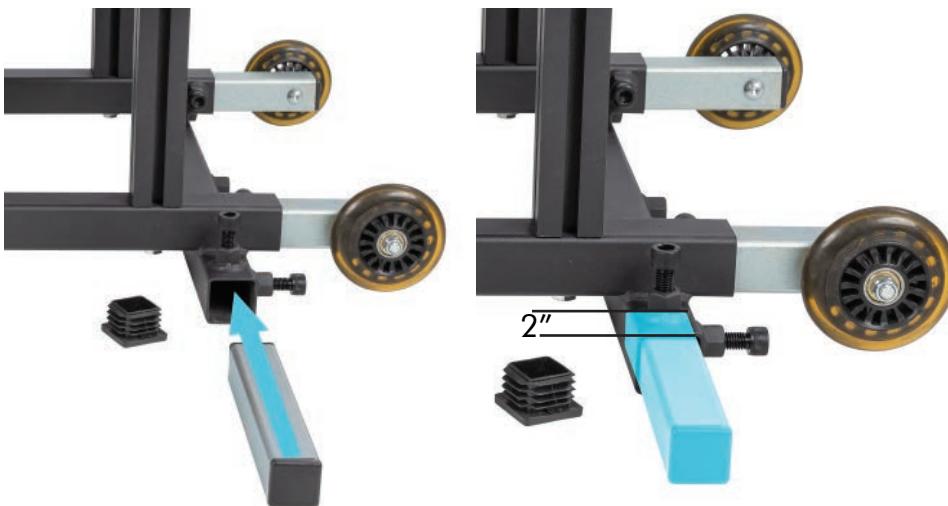
### Bracket to seat frame installation.

**Stand alone bracket** (without "advanced modular side mount kit").  
For installation with AMSM kit, skip to page 28.

1. Pry out frame side end cap at rear left corner of frame and pre-install pair of M10x20mm bolts.



2. Slide in short connecting bar to frame approximately 2 inches and tighten down both bolts. **⚠️** Ensure there is enough tube inside frame to secure bolt to it.



3. Slide in pivoting adapter bracket to short connecting bar at the end and tighten down pivoting bracket by pair of M10x12mm set screws.



4. Slide down 4way coupler approximately half way and secure it to pivoting bar by pair of M10x12mm set screws.

**⚠️** Ensure 2way coupler is installed in the same direction as shown.



**⚠️** When collective control is used on stand alone bracket as illustrated above, it is recommended removing the fighter jet throttle bracket or using longer arm of lower L bracket mounted to seat frame for wider range of adjustment sideways, to make room for collective between seat and throttle.



## **Bracket to seat frame installation with “advanced modular side mount kit”.**

5. Slide out AMSM assembly out of seat frame and slide in collective pivoting bracket assembly to rear T-extension approximately two inches in. Secure bracket by pair of M10x12mm set screws.



6. Slide down 4way coupler approximately half way and secure it to pivoting bar by pair of M10x12mm set screws.

**⚠ Ensure 2way coupler is installed in the same direction as shown.**



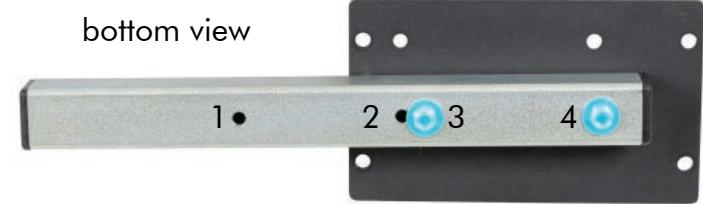
7. Next steps apply for both stand alone collective installation or collective with AMSM kit.

## **WinWing collective installation**

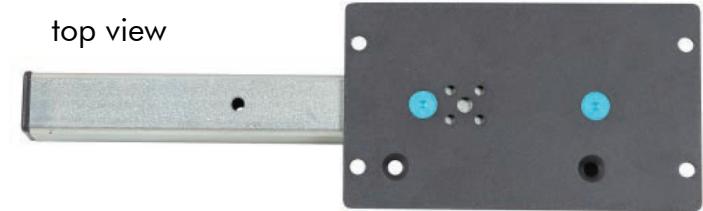
**⚠ For VirPil collective skip to page 33.**

Install adapter plate to collective arm bar at third and fourth holes left to right) by using pair of M6x40mm bolts, washers and lock nuts.

bottom view



top view



8. Install WinWing collective base to adapter plate by set of bolts/washers, lock washers and nuts.



9. Slide collective arm bar to 4way coupler and secure it by pair of M10x12mm set screws.



10. Mount AMSM assembly back to seat frame.

Adjust Throttle distance to collective by sliding Lower L brackets in/out.

Adjust collective distance to seat by sliding T-extension in/out from seat frame. Ensure T-extensions have enough tube inside the frame to lock quick release knobs.

Adjust collective between throttle and seat by sliding it in/out on rear T-extension.

**⚠** Ensure parallel relation between side rail and seat frame.



11. Collective grip adjustment.

A) Arm reach. Loosen pair of set screws on 4way coupler to arm bar and adjust fore/aft. **⚠** Refer to page 32 for grip base install behind pivoting tube. Applicable for longer grips such as VirPil Apache grip.



B) Collective base height. Loosen pair of set screws on 4way coupler to pivoting bracket bar and adjust up/down.



C) Pitch control angle range adjustment. Loosen pivoting bolt/nut and tilt bracket forward/backward.



## 12A. Use of collective with short grip.

Relocate collective bracket assembly to front tube of seat frame.

Reverse arm bar installation to collective base backwards.

Reverse pivoting bracket installation in front of short tube or T-extension bracket.

 Same collective adjustments apply.



## 12B. Use of collective with extra long grip (Apache style).

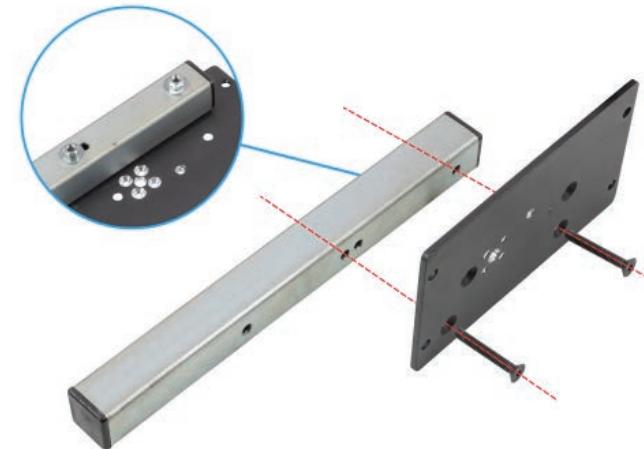
Mount collective behind pivoting tube as illustrated.

Mount arm bar in the mirror like reference to front of pivoting tube. Removal of plate and control is required to access bolts holding the arm bar.



## 13. VirPil collective installation with optional counterweight balance spring kit.

Install arm bar to plate by using pair of M6x50mm countersink bolts, washers, tooth washers and nuts. Use 5mm hex key and 10mm flat wrench.



Remove Virpil factory bracket held by M8 bolt (5mm hex key) and 4 Phillips head screws.



Remove pair of bolts by using 2.5mm hex key.



Install counterweight spring kit. Ensure loading block is set to upper position (loose spring) as illustrated.

Skip to next steps if kit is not being used.



Place counterweight spacer in spring coil with black keyway matching the direction of spring end and install SimFab adapter plate by using Virpil longer bolts. Add SimFab included tooth washer between M8 bolt and washer.

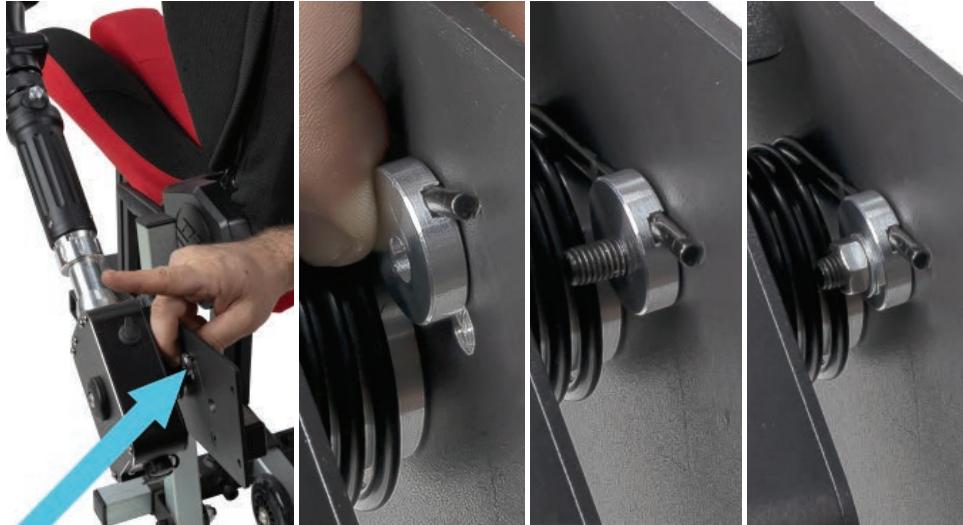


Install arm bar to 4way coupler. Tighten pair of set screws on 4way coupler by 5mm hex key.

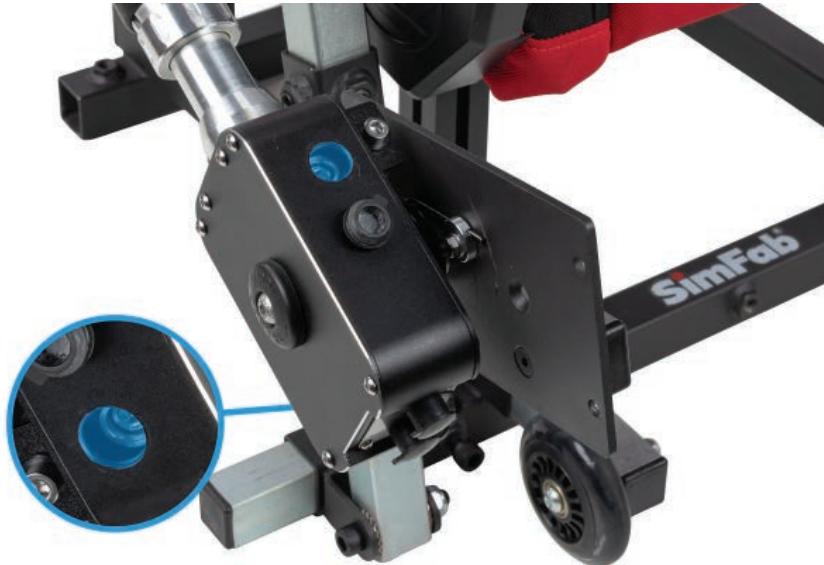
**⚠** Arm reach fine adjustments will be made last.



Ensure grip is set at highest pitch point for the lightest spring tension. Position spring end retainer washer with spring wire into the washer channel. Guide washer to plate hole with fingers and insert SimFab included M5x15mm bolt through plate and washer holes. Install Virpil included nut and SimFab included tooth washer to bolt. Tighten bolt by using 4mm hex key and 8mm flat wrench, both included in SimFab kits.



Adjust VirPil collective base friction bolts under rubber caps (top and bottom of base). Adjust counterweight spring mechanism by 5mm hex key.



Adjust pivoting tube tilt for balanced pitch range. Test highest and lowest grip position to find optimal setting to personal preference.

**⚠ Ensure tilt bolt is tight.**



Adjust arm bar for optimal arm reach.

Adjust 4way coupler on pivoting tube for optimal height adjustment.



17. Use Velcro tie wraps to run all cables neatly around brackets and tubes. Ensure cables are not getting pinched or over stretched during re-adjustment.



18. To break down, store away or move your SimFab flight pit, disconnect each peripheral module/attached bracket at easiest breaking points as shown.



## Installation and use of flight sim add-ons to DD frame (chassis).

⚠️ To maintain squareness of DD frame, loosen one part and section at the time. Go back to DD kit installation process if frame or parts go out of alignment and no longer plumb and square.

### Adding 4way couplers to side rail (left or right side)

Lift either side of seat and remove leveling feet. Use 2nd person to assist during process.

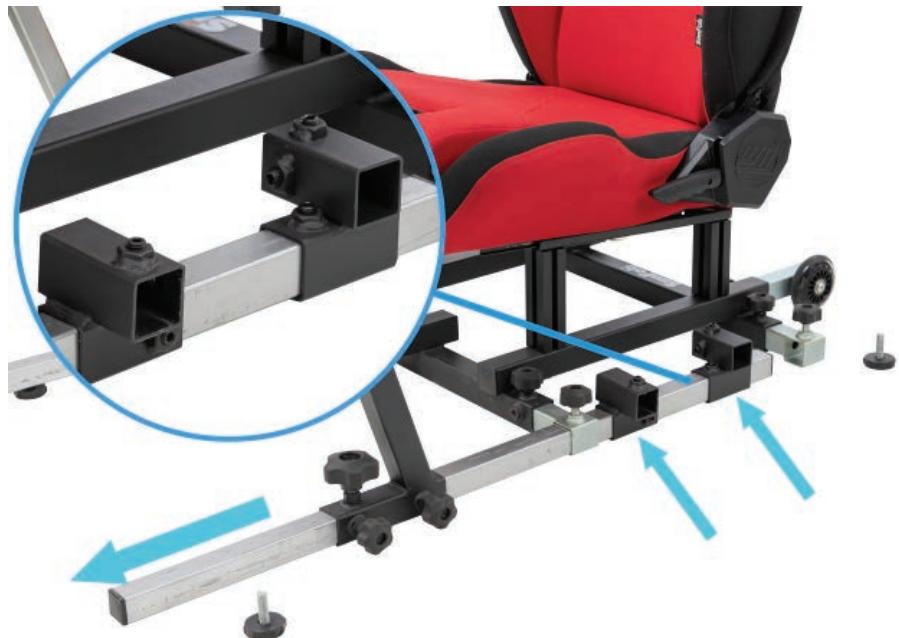
Loosen all three knobs on lower side of upright post and two knobs securing side rail to T-extension brackets.



Slide side rail forward and install 4way couplers.

**⚠** Illustration below shows pair of couplers installed for helicopter sim collective bracket and fighter jet throttle. Install 4way couplers in the direction as shown. Use set screws placement as reference.

It is recommended to use helicopter collective bracket as stand alone unit, however fighter jet throttle can be installed at the same time.



Install back leveling feet, tighten all knobs and bolts. If necessary re-align all parts to keep framework square and plumb.

**⚠** Coupler can be installed in front or behind T-extension brackets depending on personal preference of arm reach to controls.

Use either long or short arm of lower L bracket depending on height position preference.

Turn upper L bracket for stick and throttle pointing sideways (default), forward (+3" reach) or backwards (-3" reach).



Follow previous installation instructions for collective control with short tube mounted to lower side/rear 4way coupler.

**⚠ Install 4way coupler in reverse to bring collective closer to seat.**



Install throttle lower L bracket to front 4way coupler. Install upper L bracket with plate and throttle to lower L bracket. Make final adjustments. Ensure all set screws, bolts and knobs are tight.



## Specifications:

Recliner: max: 170 degrees

Construction: tubular steel frame with elastic strap supports

Seat Materials: high-density cold cure foam filling; Fabric, Steel chassis

## Instructions during use and care:

Move simulator around with caution to avoid collision.

Keep out of direct sunlight and outdoor use.

Watch fingers when adjusting recliner.

Placing heavy or sharp objects on the seat may damage the surface material.

Do not use abrasive or chemically aggressive materials on the seat.

Use dry cloth or soft brush to clean the chair.

## Dimensions:



## Warranty Information

### Return Policy

### Terms And Conditions

<http://homeracer.com/ow-termsandconditions.html>

