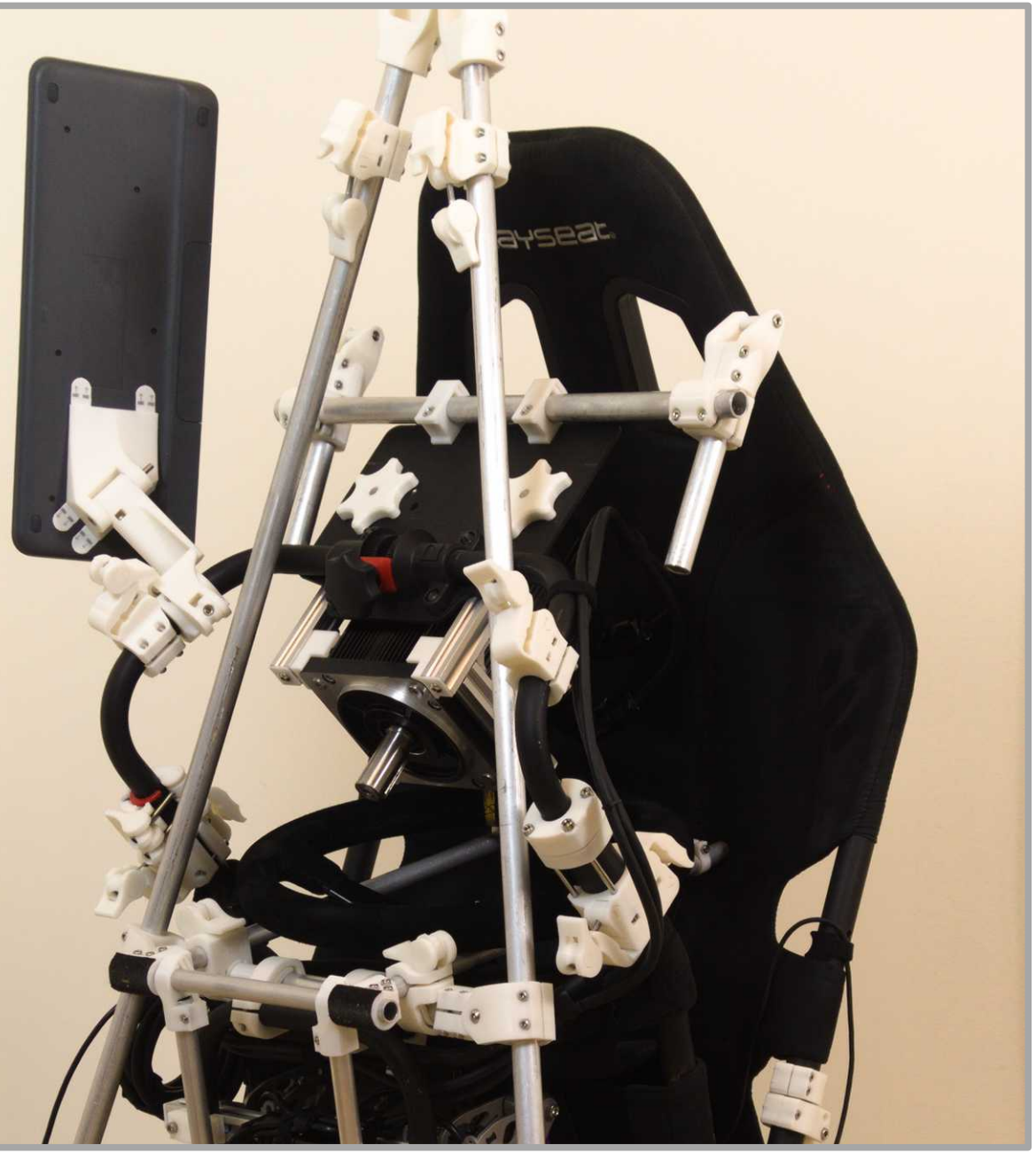
PLAYSEAT CHALLENGE LOCK-MOD

Assembly Manual

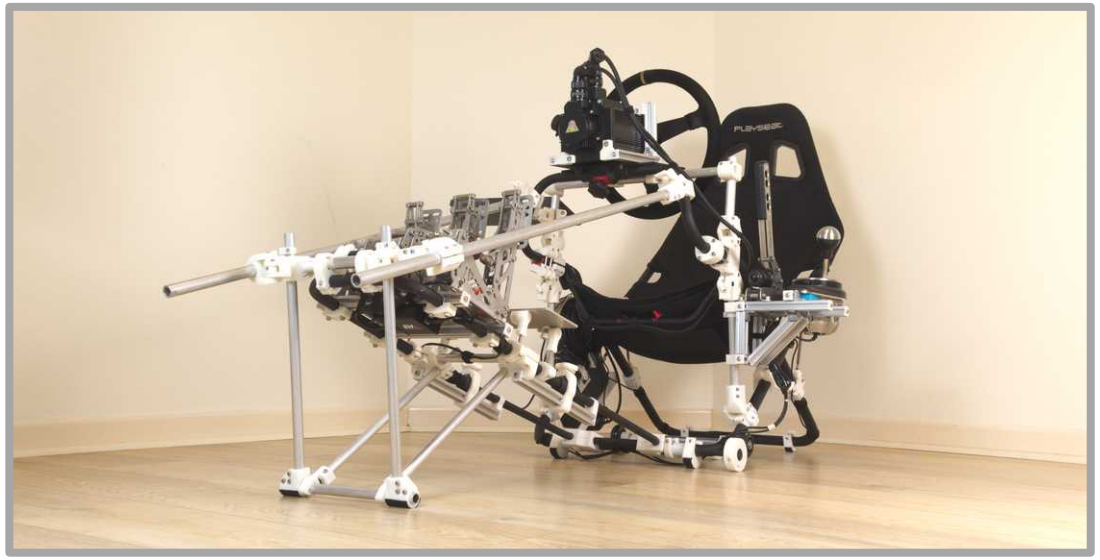


About

This is the assembly guide for the Lock-Mod, an all encompassing upgrade for the original Playseat Challenge sim-racing rig.

Use in conjunction with the Lock-Mod Torque Guide to ensure proper assembly of the kit. Accompanying accessory assembly manuals can be found here.

Note:
The Lock-Mod kit is not compatible with the Playseat Challenge X (Logitech edition). Kits compatible with this latest product will be released as the Lock-Mod X.



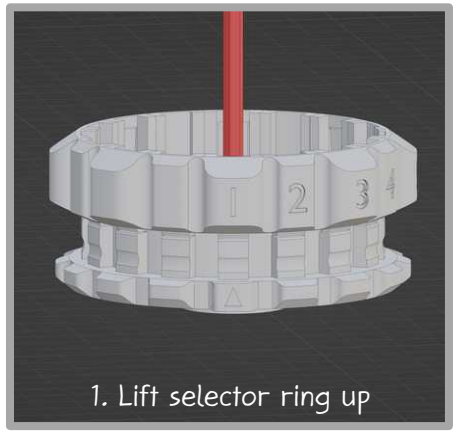
Contents

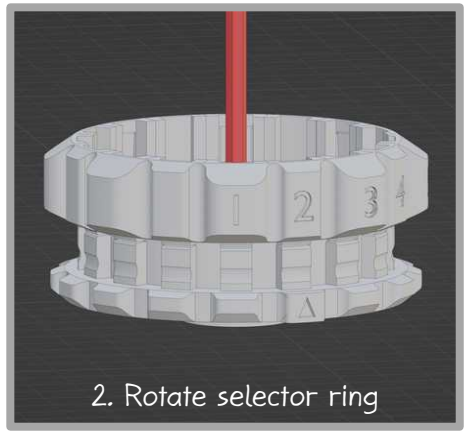
Tools

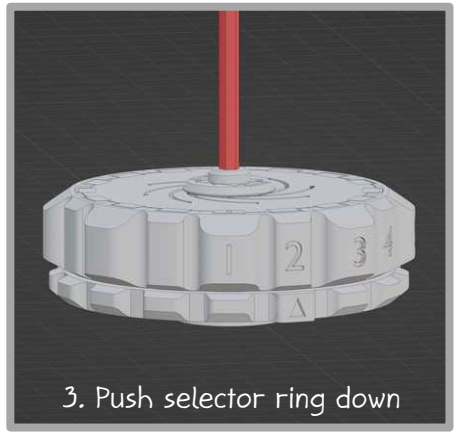
All tools required to assemble the Lock-Mod come with the kit, with these tools being 2 extra long ball ended hex keys (M3 & M4 size), and an adjustable torque wrench that they interface with.

The adjustable torque wrench has 8 settings, ranging from 0.25 - 1.54nm. The values are as follows (nm value accurate to within ±10%):

T1: 0.25nm, **T2**: 0.44nm, **T3**: 0.63nm, **T4**: 0.82, **T5**: 1nm, **T6**: 1.18nm, **T7**: 1.36nm, **T8**: 1.54nm







The torque values for each part can be found **here**.

To ensure proper function of the Lock-Mod kit, these torque values should be followed. However, if you notice that, for instance, a clamp has not fully secured a tube from sliding, you may need to increase the tightness of the relevant bolts. If so, do not go above 140% of the bolts' listed spec to avoid damaging the part, and keep in mind that this is not recommended if the part is already functioning properly.

Additional Torque Wrench Guidelines

- For best torque value consistency, tighten bolts until the wrench clicks over 3 times consecutively, as the first few clicks can sometimes be below the referenced torque value.
- Limit rate of clicks to about 3 per second. Going faster than this reduces accuracy.
- Tool measures in clockwise (tightening) rotation. Anti-clockwise rotation can be used if needed, but won't click over at a consistent value.
- If stored in a hot enclosed space or left in direct sunlight for extended period, allow to stabilise to room temperature before use.
- Temperatures above 65ºC/149ºF can cause the plastic to permanently warp, reducing the torque wrench's accuracy and possibly breaking it.

Optional Tools

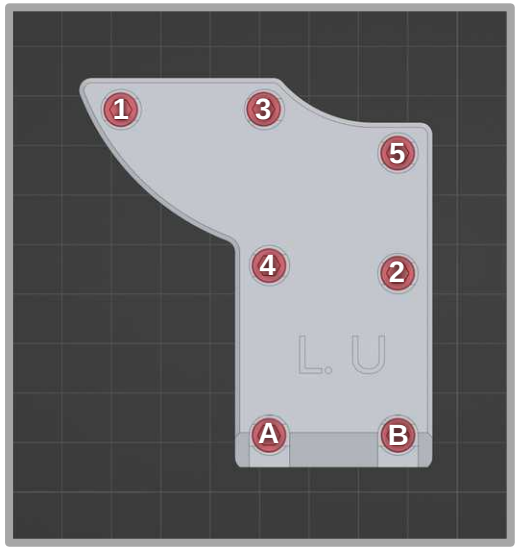
- An electric screwdriver can be used to quickly thread bolts into place, but the bolt should only be fully tightened with a torque wrench. To avoid accidentally over-tightening with an electric screwdriver, set the clutch slip to a very low setting or feel for when torque on the bit begins increasing.
- A cutting tool (scissors, pliers, blade, etc) to trim zip ties.
- Graphite pencil

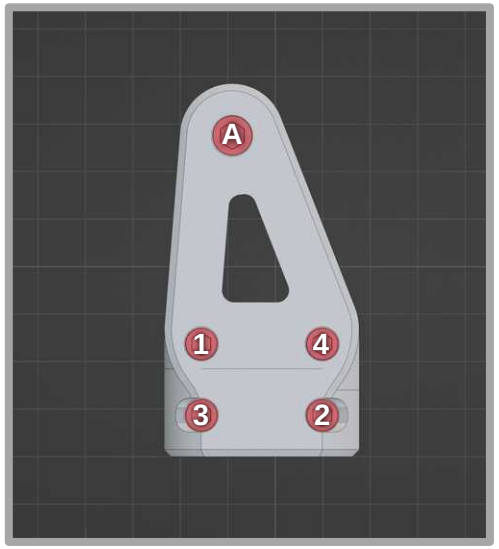
Additional Assembly Information

Cross Pattern Tightening

Where applicable, bolts should be tightened with cross pattern tightening. This applies to parts where multiple bolts are sharing a load, and involves incrementally increasing the torque while jumping between (roughly) opposite sides of the part. Doing this when assembling (or disassembling) a part will ensure a single bolt doesn't become over-strained, which can cause the thread/nut to seize up.

Examples of the cross pattern sequence are illustrated below. Note that this sequence will be repeated many times as you bring the bolts up to their final torque rating.



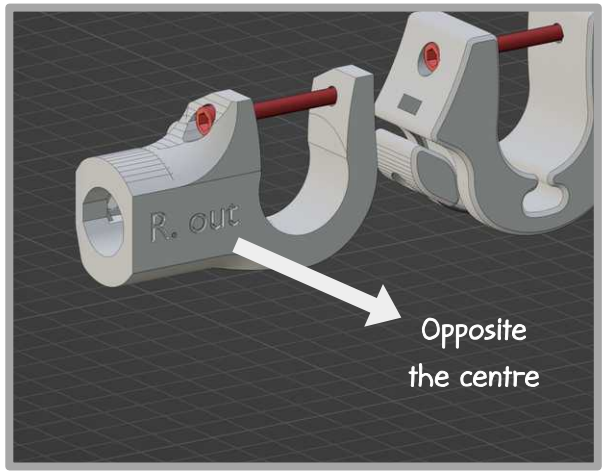


Part Orientation

Many parts in the Lock-Mod kit have a code embossed in them. These codes can be broken down with the following legend:

- L – Left
- R – Right
- In – Towards the centre
- Out – Opposite the centre
- U – Upwards
- D – Downwards
- F – Front
- B – Back
- ^ / < / > / v – Direction modifier (applicable to *In, Out, U, D, F, B*)

These directions are relative to the position of the embossed text, as shown in the examples below.



Note: As this kit has been updated, the orientation of some parts has been changed in comparison to the photos in this build guide. If photo and part code conflict, prioritise the code.

Care Instructions & Warranty

Care Instructions

- Storing the kit in temperatures above 53° C or 127 F should be avoided to avoid parts from warping.
- A PTFE infused emulsified wax solution has been applied to lubricate sliding surfaces in the Lock-Mod. This should last the lifetime of the kit, but a few drops of liquid chain wax can be re-applied if necessary.
- All clamp levers should be moved to the open position if storing the assembled Lock-Mod for an extended period of time.

Warranty

This kit comes with a 2-year warranty from the date of purchase, and it covers any failures resulting from reasonable use. Reasonable in this case assumes:

- All instructions in the assembly manual are followed.
- Maximum 20nm torque limit for the wheelbase in standard/reverse configuration, and 10nm in quick release configuration.
- Maximum 80kg of pedal force.
- Maximum 25kg force for the handbrake and shifter side assembly.

If these points are not adhered to the longevity of the Lock-Mod cannot be guaranteed.

If any problems are encountered with the kit, use the contact found here:

https://psyskip.com/about/

Kit Contents

Not including optional extras, the Lock-Mod kit comes packaged in 6 part bundles. These bundles are loosely grouped in their respective location on the Playseat Challenge rig.

1. Feet & Roller Lock

Makes up the assembly which rigidly locks the Playseat Challenge in the folded position and allows it to be moved via rolling.

2. Pedal Assembly 1

Pedal tray reinforcement parts.

3. Pedal Assembly 2

More pedal tray reinforcement parts.

4.A. Side Struts & Wheelbase Hinge/Clamp: Open & Shut

Original hinge/clamp design that allows for opening/closing of Playseat Challenge wheelbase.

4.B. Side Struts & Wheelbase Hinge/Clamp Design: Static Clam

Simplified hinge/clamp design that's easier to assemble but secures the wheelbase in a permanently closed position.

4.C. Side Struts & Wheelbase Hinge/Clamp Design: Split Clamp

Design to use if user is unable to remove the original Playseat Challenge rotating clamp.

5. Large Pedal Struts

Struts that connect the pedal tray with the wheelbase.

6.A. Wheelbase Struts: Close (Standard)

Reinforcement assembly for the wheelbase plate.

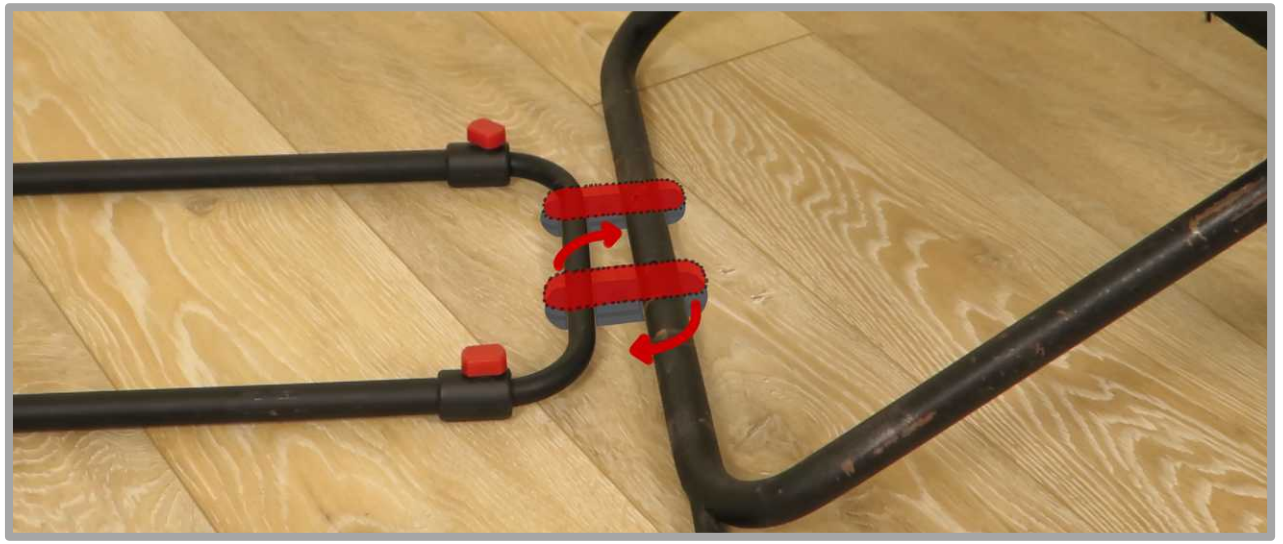
6.B. Wheelbase Struts: Far (Reversed)

In addition to the parts in 6.A, these additional QR clamps to allow reverse wheelbase mounting are also included (not needed with some configurations of the Lock-Mod).

Assembly Instructions

Preparing Playseat Challenge Frame

Remove the original Playseat Challenge feet and pedal connecting joints. The feet should pop off with a bit of pressure. The pedal connectors can be removed by rotating the top half 90 degrees.



If wanting the option to revert the PSC to it's stock form, any original parts replaced with the Lock-Mod upgrade should be saved.

Also note that the build process for the Lock-Mod is much easier if the Playseat Challenge has no gear attached. Pedals/wheels should be removed before proceeding.

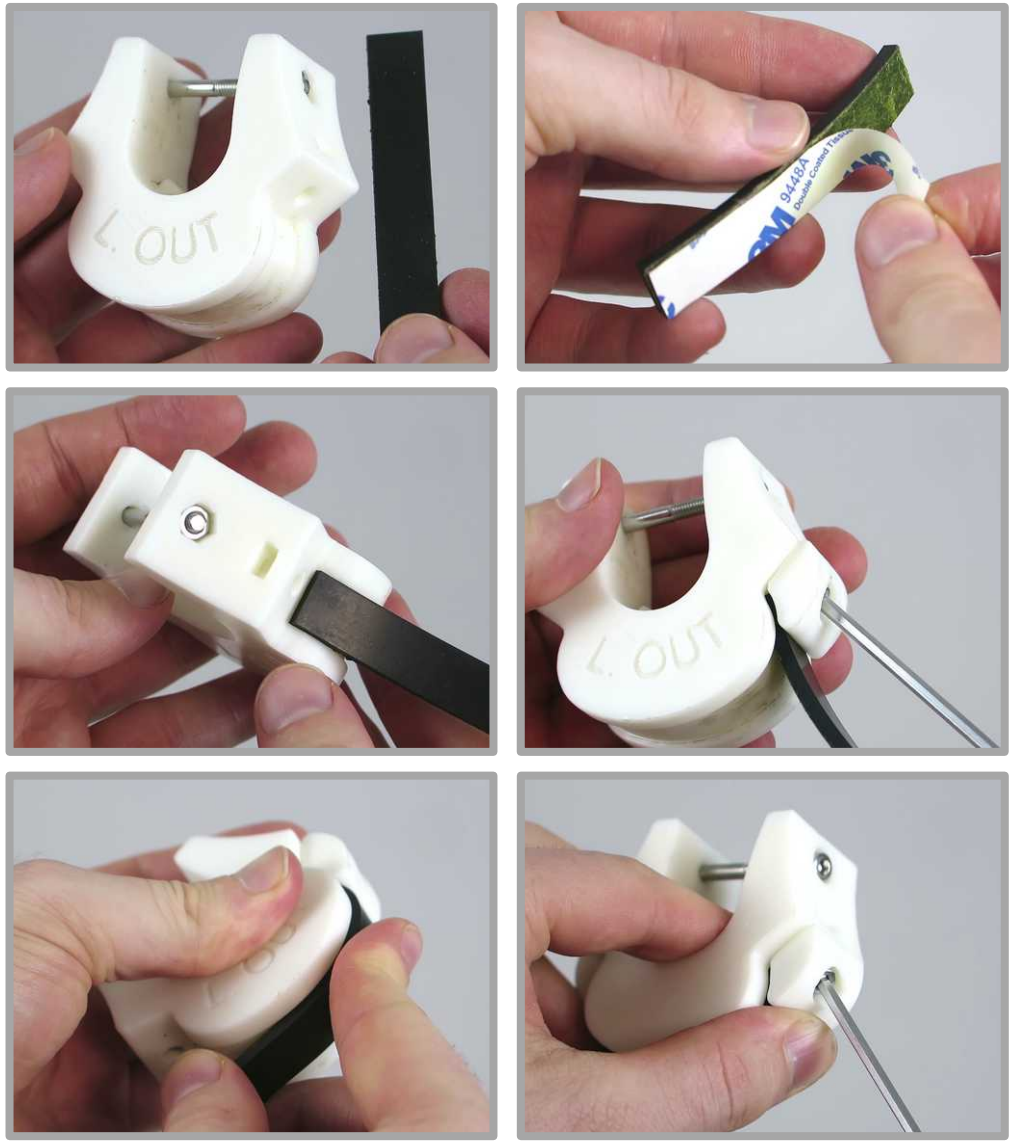
Rubber Feet Inserts (Optional)

The Lock-Mod feet and folding lock come with rubber adhesive strips that can be applied to increase the friction applied to the floor. This can help make the rig feel more planted, especially in high energy moments while racing, but can make it more difficult to move around (e.g sliding the rig under a desk once unfolded).

To attach the rubber strips to the feet:

1) Remove the rubber anchors.
2) Apply rubber strip to one side.
3) Re-attach anchor to that side.
4) Ensure strip is taught while adhering it to the foot.
5) Re-attach remaining rubber anchor.

Also included are a set of small rubber strips for the roller lock. If using the rubber feet inserts these should be attached as well. This will ensure the height of the feet and locking mechanism are matched. These small rubber strips are simply pushed into place as they not be subject to as much dynamic forces as the feet.



Primary Feet

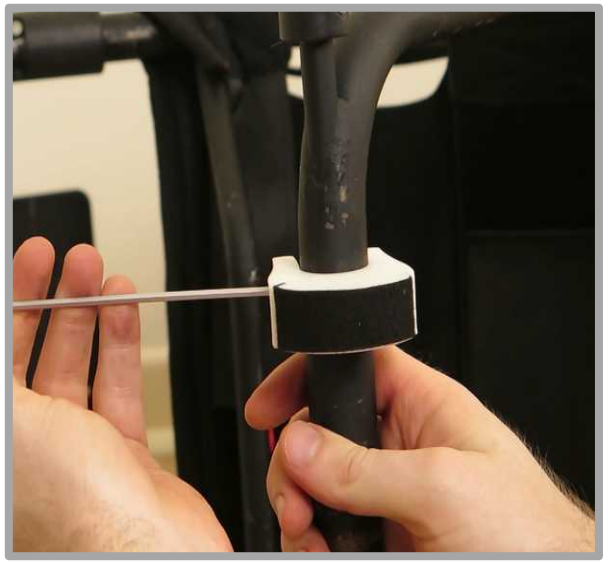
Where the original 4 Playseat Challenge feet were removed, attach the Lock-Mod feet in their place. The larger feet will be on the front, and the smaller feet on the rear.

There is a hole in each corner of the Playseat Challenge that fit with a locating tab on the inside of the Lock-Mod feet. Remember to reference the orientation code embossed on the part to correctly position the feet.

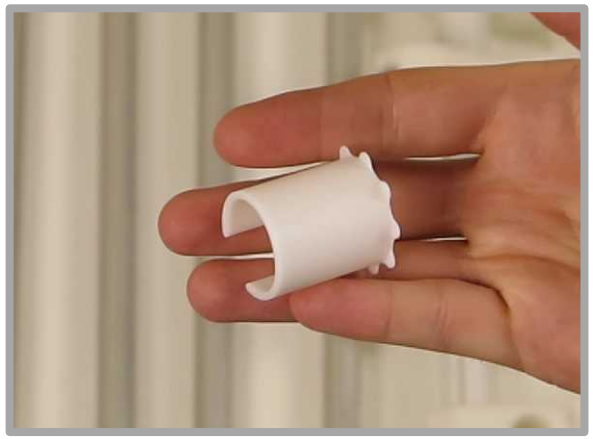
For easiest installation of the feet and lock roller, turn the Playseat Challenge on it's side or fully upside-down.

Press foot on to the tubing. If the locating tab doesn't fit into tube immediately, wiggling the part around can help it get seated.

Insert M4 bolt back into part.



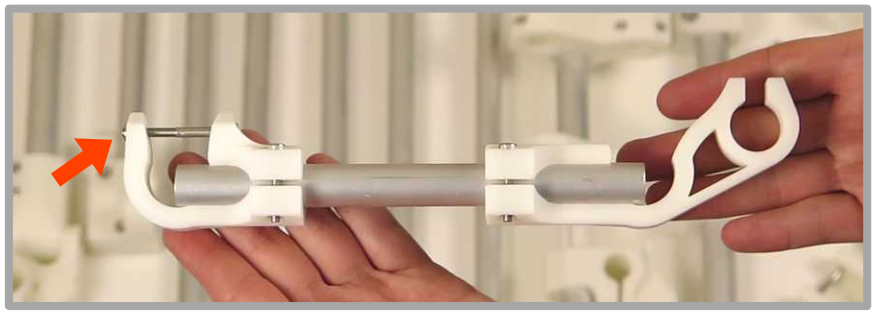
Tighten to specified torque.



The pedal tray spacers can now be snapped into place, with the 'spikes' being closest to the feet.

Roller Lock

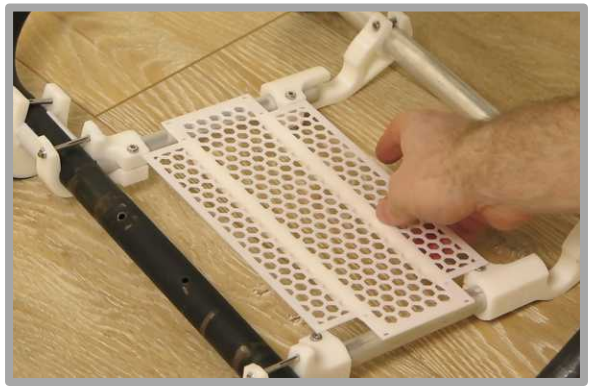
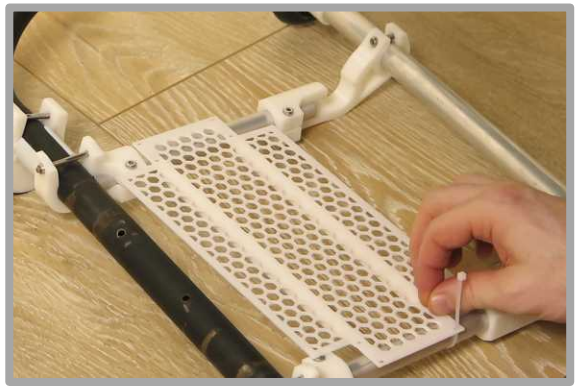
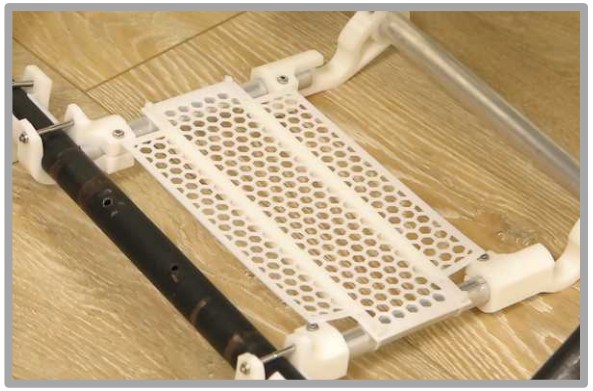
Attach the pair of lock roller struts to the front tubing of the Playseat Challenge. The end to attach has a retaining bolt that needs to be removed before installing. Re-insert bolt once struts are attached.



Remove one of the wheels from the 20mm tubing, which will allow it to be threaded through the rear clamps. After reattaching the wheel, the wheel tubing can now be centred and the clamp set screws tightened.



The roller lock struts are shipped in a compacted state, and the rear strut clamps need to be extended out before they can click onto the rear PSC tubing. The length of the lock struts can be adjusted later to adjust the compactness of the footprint, depending on the gear you attach and the required space.

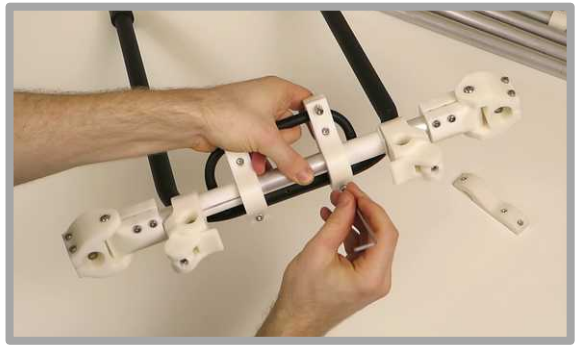




The roller lock grill can now be attached with the included zip-ties and trimmed flush.

Pedal Assembly

The Lock-Mod pedal tray is assembled as a full unit before attaching it to the main PSC structure, so building this structure on a table is recommended. Fully tightening bolts during the initial assembly should be avoided, as adjustments will be made throughout assembly. Torquing all bolts to their final spec will be done once all gear is attached in your preferred positioning.

The 2 sections of the pedal tray are first separated, and the red plastic thumb screws fully removed.

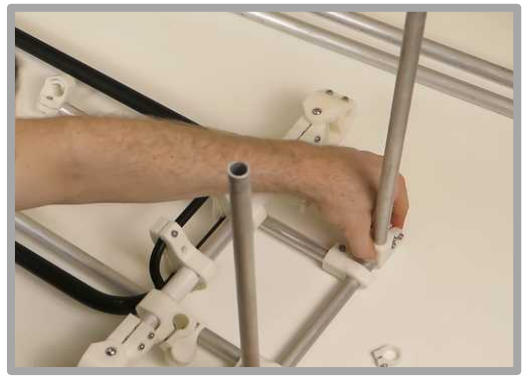


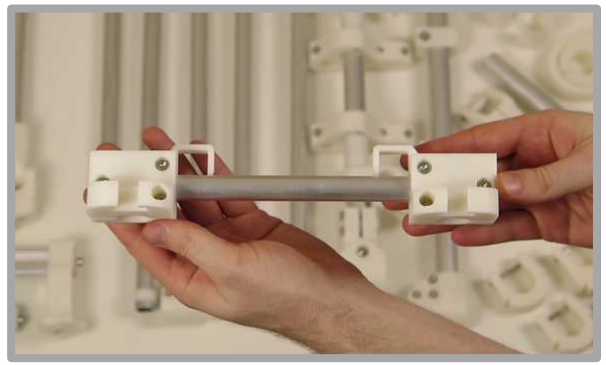
Attach the primary pedal sub-assembly to the pedal tray with the middle clamps. Ensure each part on the sub-assembly is correctly orientated according to the embossed code.

Thread the single 285mm x 16mm tubing through the bottom pedal struts' straight clamp and lay the structure underneath the pedal tray.

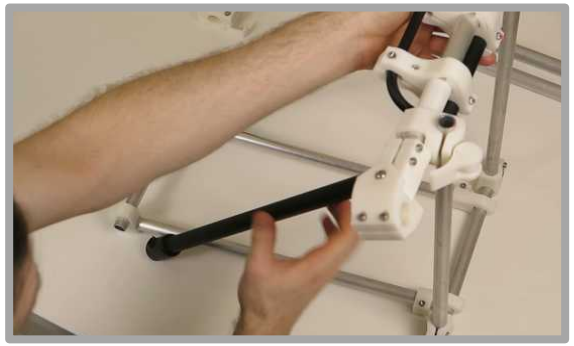

Prepare the pedal feet sub-assemblies by removing the end stop clamps. The pedal feet can now be threaded onto the ends of the 285mm x 16mm tubing.



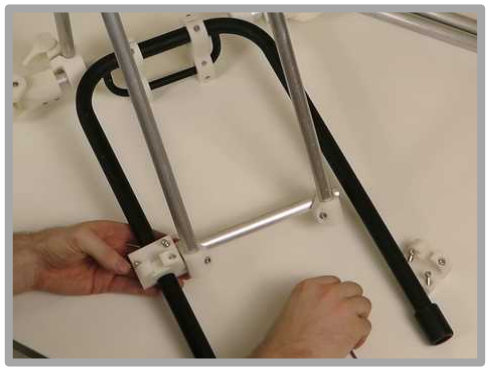
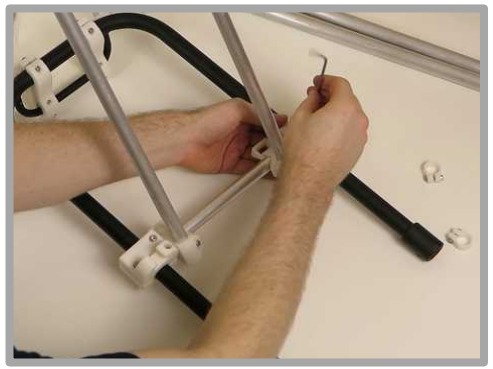




Remove the 16mm tubing from the cross beam sub-assembly and thread it through the offset clamps.

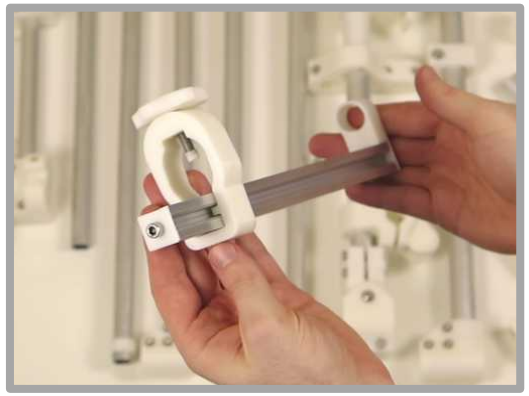



The pedal feet tubing can now be threaded into the QR height adjusting clamps. Once both tubes are seated in the clamps, flip the pedal tray to continue assembly.

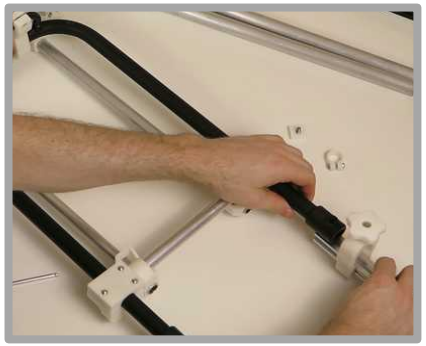




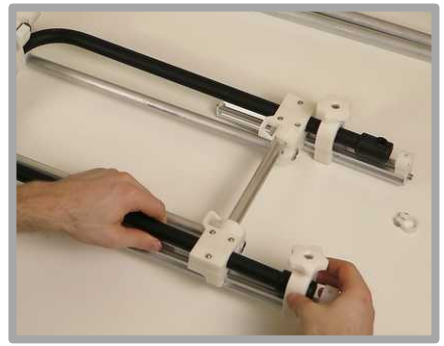
The 2 part clamps of the cross beam sub-assembly can now be attached over the top of the 16mm and PSC pedal tray tubing, without fully tightening the bolts. Keep in mind the flipped orientation of the assembly in relation to the embossed part code.

Flip the pedal tray right way up, and lower the pedal height adjuster to the lowest setting.



Prepare the PSC pedal tube reinforcement sub-assemblies by backing out the thumbscrew and removing the 2020 extrusion end cap.



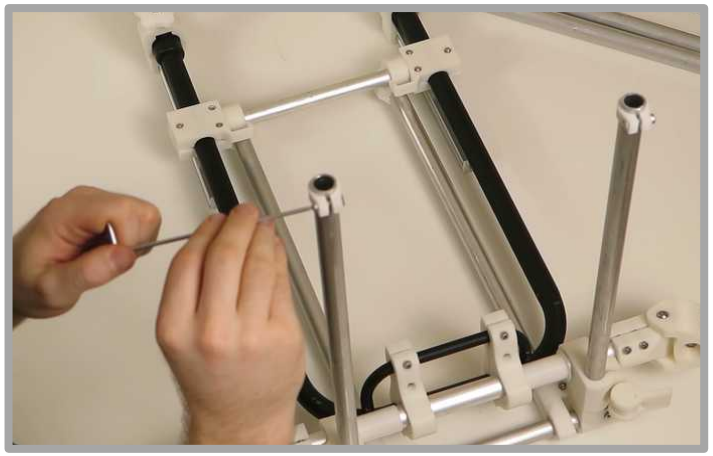



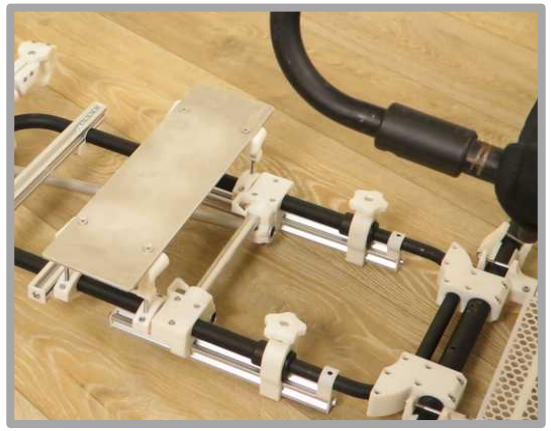
The sub-assemblies can now be slid over the PSC tubing, with the torque limiting thumbscrew in the position of the original thumbscrew. Once the 2020 extrusion has slid through the cross beam clamp guides, re-attach the end cap.

After replacing the height adjuster end stop clamps, the chosen pedal set can now be attached to the assembly. It is easiest to do this before attaching the pedal assembly to the main rig, but final positioning will be done once Lock-Mod is fully assembled.

Assembly instructions for the Lock-Mod pedal tray mount and heel plate can be found **here**.

To connect the pedal tray to the main rig, open the Lock-Mod pedal tray joint clamps and position the bottom halves underneath the main rig. The unattached half of the pedal tray tubing can then be put in position and the top halves can then be bolted into place.

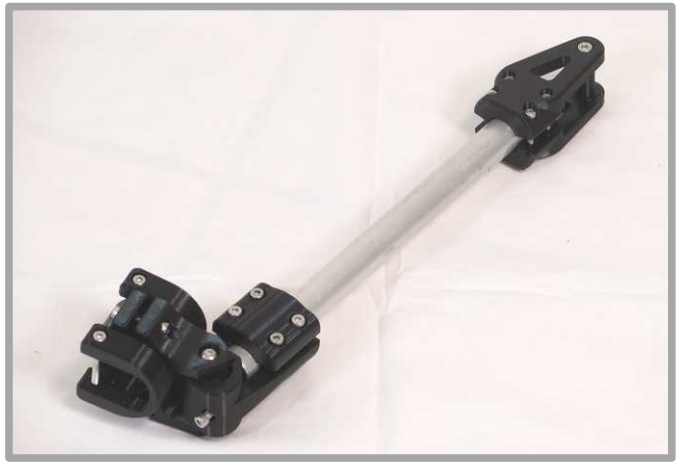




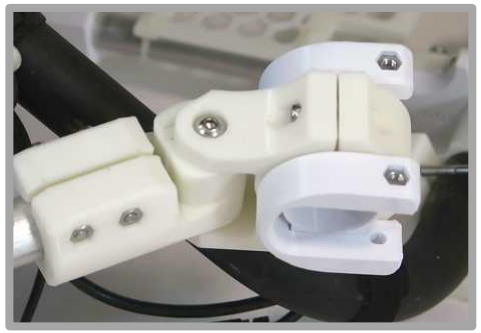
Rejoin the two halves of the pedal tray. If the inner tubing won't slide through it can help to further unscrew the thumbscrews.

To finish the pedal assembly, thread the large pedal struts into the hinged L clamp. Once the remaining Lock-Mod reinforcements have been attached, these struts will form a rigid connection between the pedals tray and the wheelbase structure.

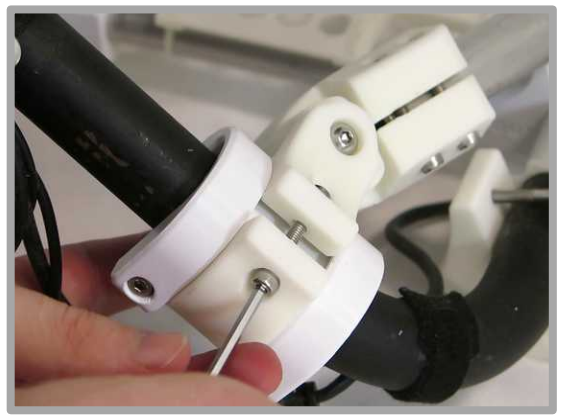
Seat Side Struts



To attach the seat side struts, first remove the inner bushing sub-assembly of the rotating hinge. Remove the 2 bushing clamps and slide the inner bushing onto the PSC tubing.



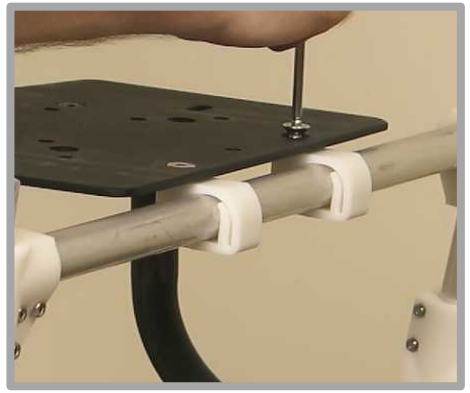
With the bushing sub-assembly positioned as low as possible on the PSC frame, the bolts of the bushing sub-assembly can now be threaded back through and the seat side struts re-attached. Tightening of the bolts will be done after the final seating adjustments are made.



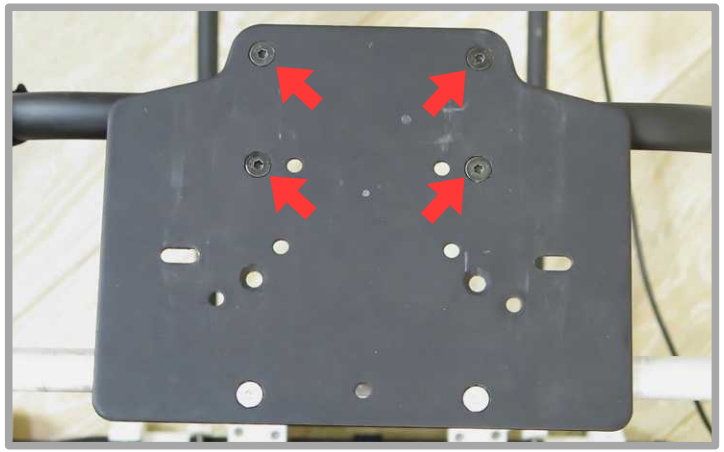
The 2 bushing clamps can now be pushed back onto the inner bushing. Ensure that the clamps are properly aligned with the bushing (they will click into place when the inner features are aligned).

Wheelbase Reinforcement Assembly

Assemble the 3 pieces of the wheelbase reinforcement assembly together. This assembly can then be attached to the PSC wheelbase plate.

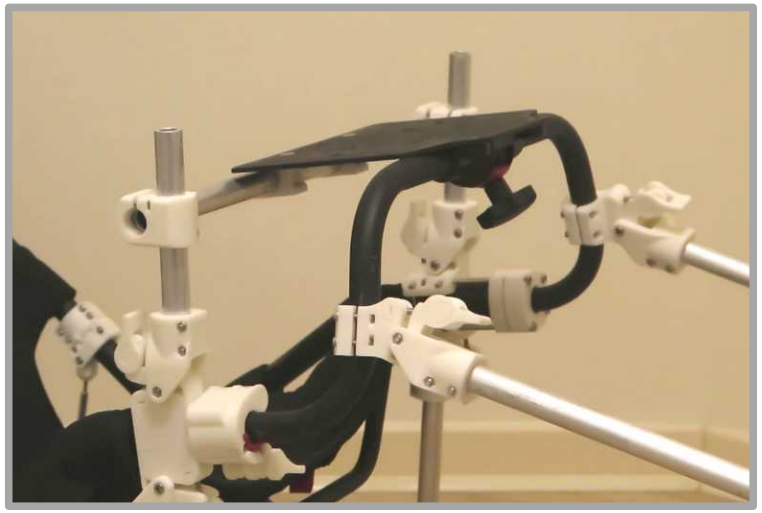


The Lock-Mod wheelbase reinforcement assembly attaches to the plate using the same M6 countersunk bolt holes that Playseat Challenge wheelbase lock uses. These are the bolts you would need to unfasten in order to reposition the wheelbase plate into the 'close' or 'far' position.

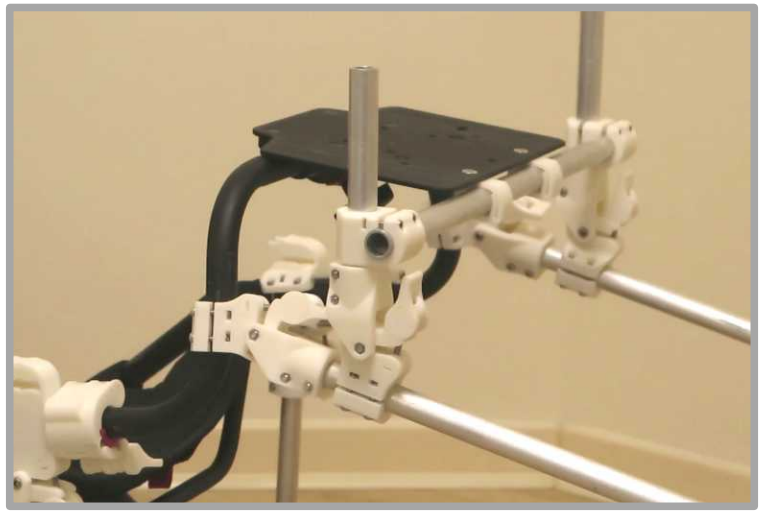


Wheelbase Plate Orientation

The wheelbase plate orientation will depend on the wheelbase & steering wheel you have, how it mounts to the PSC plate, and your preferred arm position while driving. The Lock-Mod kit is configured in the 'close' position by default, but an additional set of clamps are included if the 'far' configuration is chosen (which allows for both mounting options).



Close (Standard) – No additional clamps included, and only allows wheelbase plate to be mounted close to the user, with the wheelbase reinforcing struts connected to the hinge/clamp reinforcement.



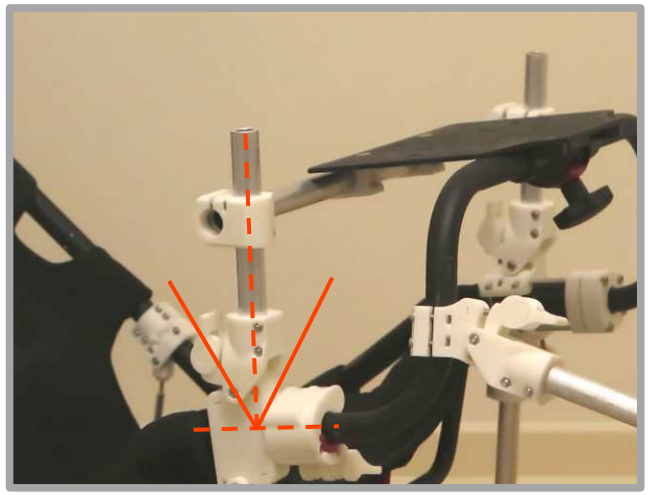
Far (Reversed) – Additional set of QR clamps also allows wheelbase plate to be mounted far from the user, with the wheelbase reinforcing struts connected to the large pedal struts.

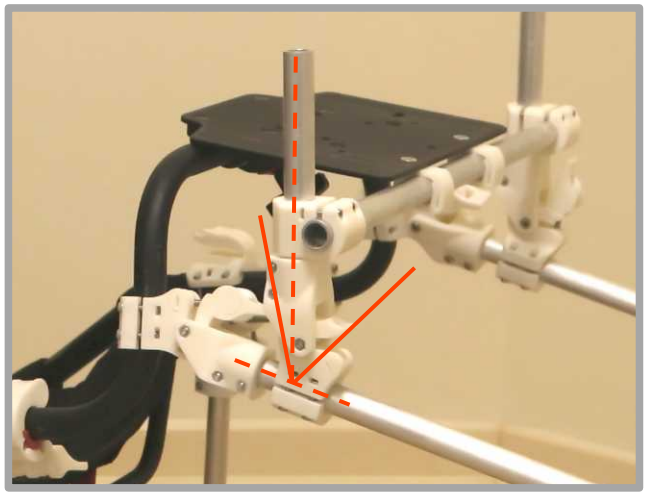
Note: The 'Split Clamp (Compatibility Variation)' hinge/clamp design already includes all parts required to mount wheelbase plate in either orientation.

Note:

The quick release interface of the wheelbase reinforcement are easiest to latch/unlatch if struts are somewhat perpendicular to the QR clamp. A steep angle can cause the mechanism to not have enough clearance to smoothly operate.

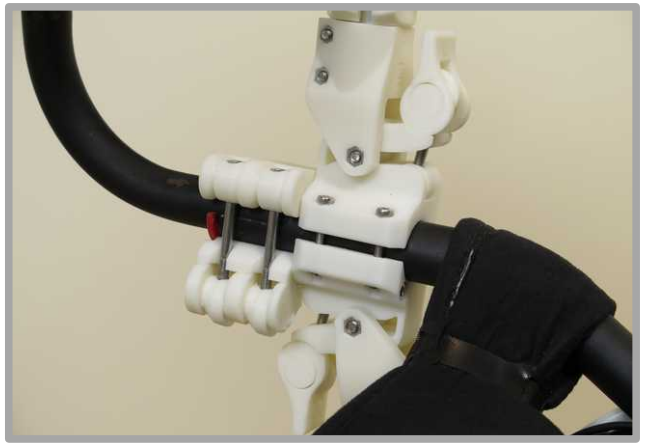
The hinges that mount directly to the PSC wheelbase plate and the right angle joints both provide an offset, and reversing these will change the angle of the wheelbase reinforcement struts. Keep this in mind when attaching the hinge/clamp reinforcements and setting the final seating position.





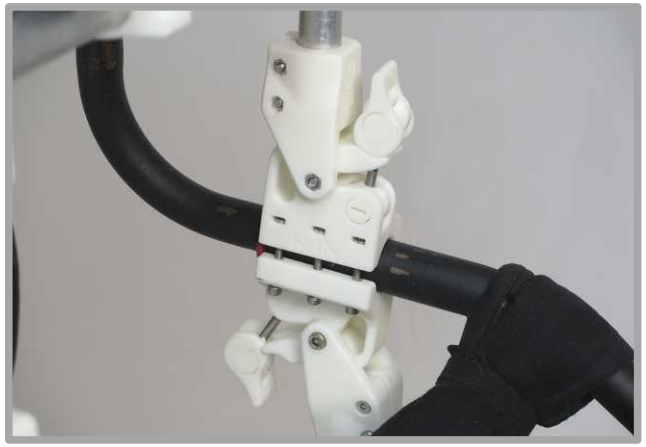
Wheelbase Hinge/Clamp Strut Connectors

The Lock-Mod kit has variations on how the wheelbase is reinforced for usability and compatibility reasons. There are 3 different hinge/clamp variations.



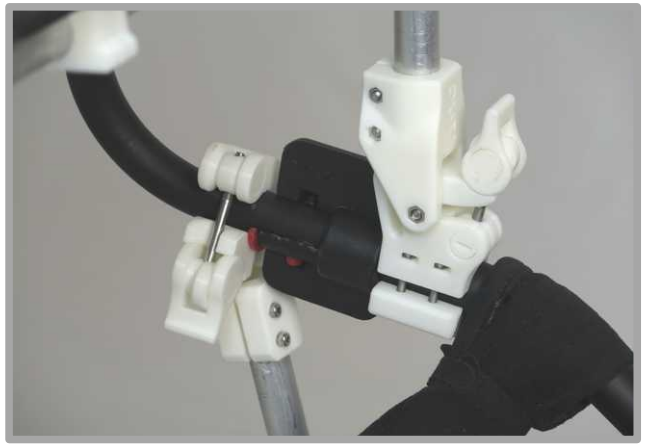
Open & Shut (Original)

This is the original design that allows for the wheelbase to be swung open. *Requires the Playseat Challenge right rotating clamp to be removed.*



Static Clamp (Simplified Variation)

This design simplifies the assembly process but removes the ability for the wheelbase to swing open. *Requires the Playseat Challenge right rotating clamp to be removed.*

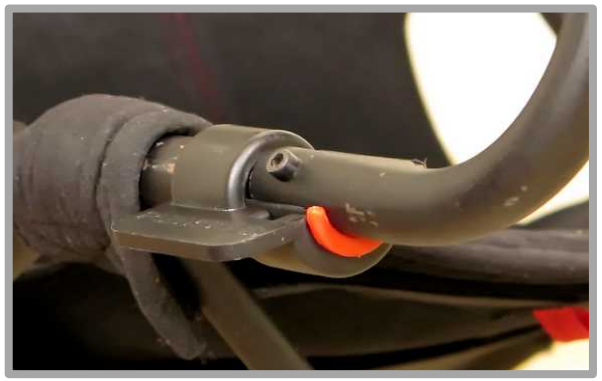


Split Clamp (Compatibility Variation)

If the original Playseat Challenge rotating clamp can't be removed, this design allows the wheelbase/side struts to be connected without reinforcing the hinge/clamps. Slightly lower rigidity than the other options, so is not recommended unless required.

Hinge Compatibility

To determine if you need to use the Split Clamp (Compatibility Variation), follow these steps if possible. Do not use excessive force.

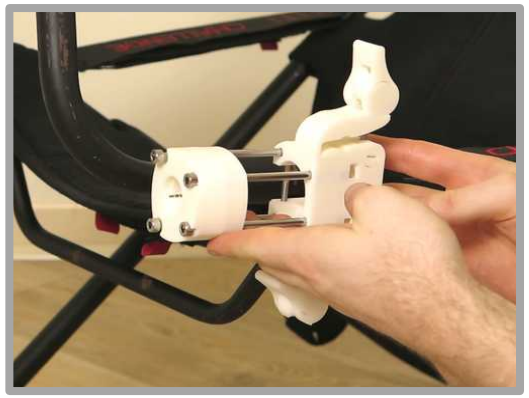


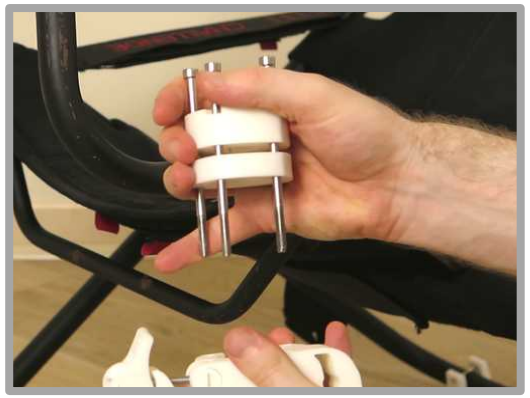



Some Playseat Challenge batches use a weak glue to secure the red plastic bushing in place, but others use a much stronger glue that is impossible to remove with mechanical force alone. This stronger glue can only be released using heat (from a heat gun or possibly a hair dryer). If attempting to use heat to remove the bushing (to allow the use of the more rigid wheelbase hinge reinforcement options) then heat the underside of the metal tubing to minimising heat directed at plastic. A flat-head screwdriver can be used to carefully pry the bushing away from the tubing when glue begins to weaken. Care should be taken not to damage the red plastic bushing when doing this, as it is re-used with the Lock-Mod.

Wheelbase Hinge/Clamp Design: Open & Shut (Original)

Starting with the left hinge, split the left hinge reinforcement as shown.





Remove the PSC wheelbase by pushing in the meal pin on the underside of the left hinge while sliding the tubing out.

The split half of the hinge reinforcement with the 4 long bolts attached comprises of 3 parts:

- End Cap
- Inner Cam Clamp
- Bolt Spacer

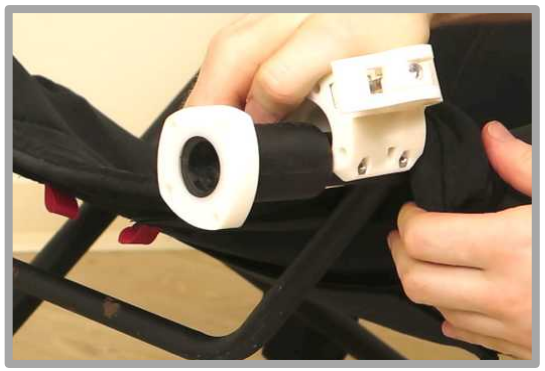
Thread the End Cap and Inner Cam Clamp on to the wheelbase tubing. When doing so, make sure that the Inner Cam Clamp isn't installed backwards, as this will prevent the two parts interfacing properly.

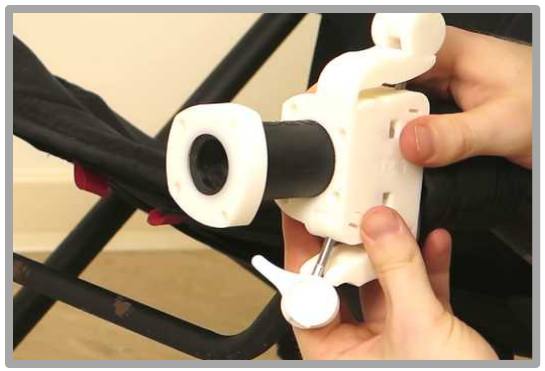
Both parts need to be threaded past the metal pin.

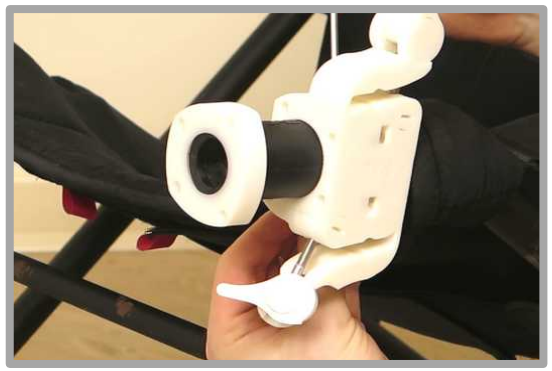
Note: The 4 long bolts should be removed before sliding onto tubing to avoid getting in the way.

Press fit the Bolt Spacer on to the left hinge. The exact alignment of the part will be set later.

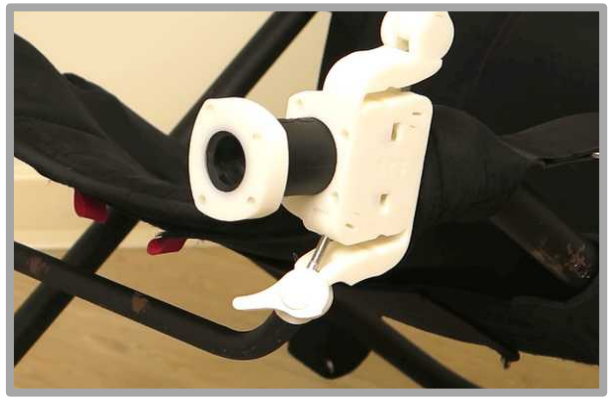
The QR connector of the left hinge reinforcement sub-assembly needs to have it's retaining bolts removed.

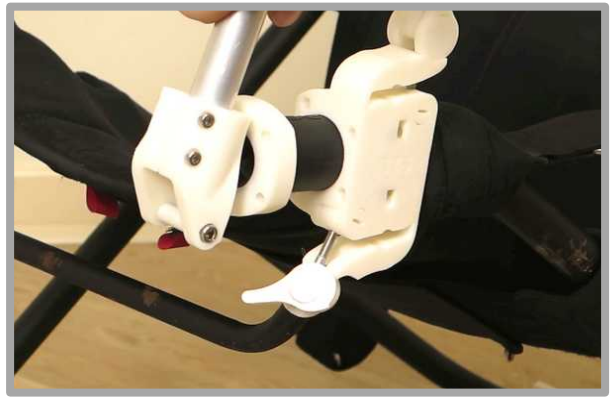




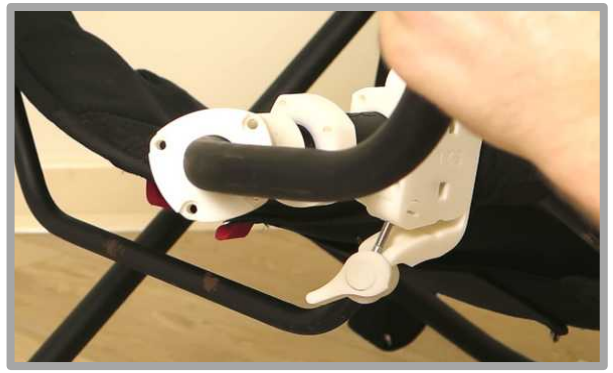


Press QR connector on to the tubing from above, then rotate to the correct orientation. After this, slide the part forward as far as it will go. Rotating it slightly back and forth while pushing will help ensure part is fully seated. Try and make the QR connector as straight as possible, using the flat side as reference.





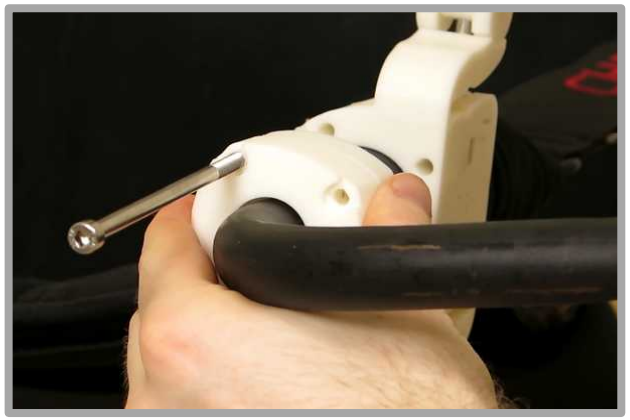
After roughly lining up the Bolt Spacer to match the bolt pattern of the QR Connector, it can be fully seated by lightly tapping on it with a wheelbase strut (or mallet, if available).



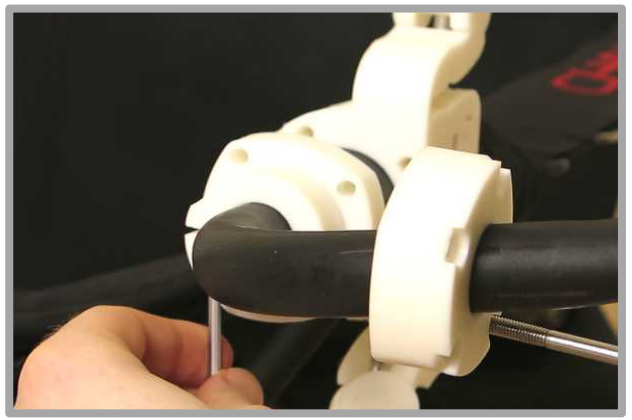
Reattach the wheelbase tubing to the main structure, ensuring that the metal retaining pin fully seated in the guide before resting the arm in the open position.

Rotate the Inner Cam Clamp to the position shown in the above image.

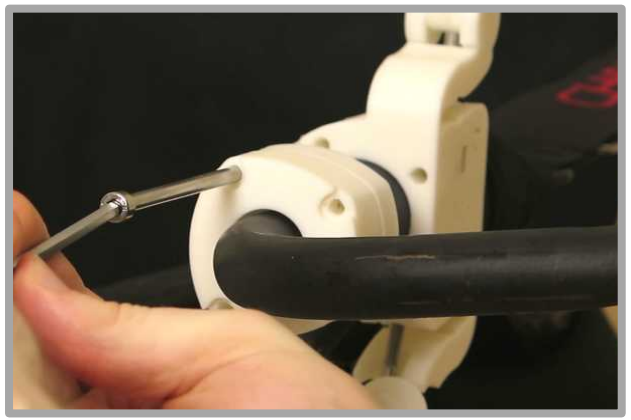
Ensure there's a 1-2mm gap between the Inner Cam Clamp and Bolt Spacer, then slide the End Cap over the Inner Cam Clamp.



Rotate the End Cap anti-clockwise until the bolt patterns line up.

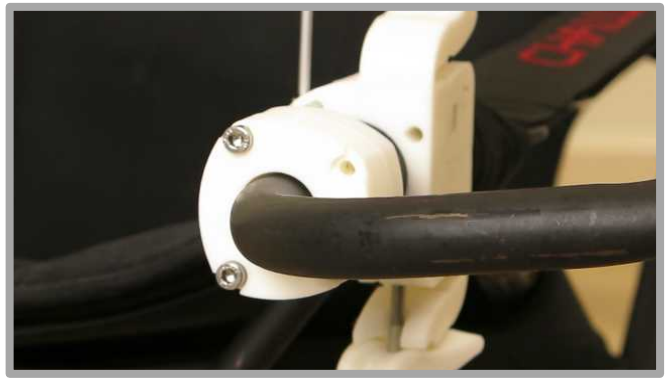


Double check that there's still 1-2mm clearance between the parts before tightening the Inner Cam Clamp to spec.



Slide the End Cap back into position.

Thread the 3 bolts shown through the sub assembly without applying any pressure to the End Cap.



Tighten the clamp bolts and the set screw of the QR connector.

Lower the wheelbase arm into it's closed position.

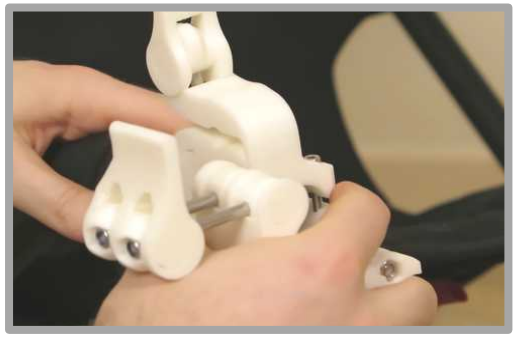
Thread the 4th bolt through. With all 4 bolts attached, they can now be brought up to the specified torque.

Note:

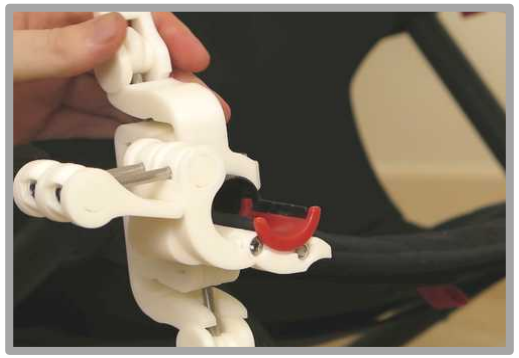
The purpose of the hinge reinforcement is to eliminate as much slop as possible from the original mechanism (which can be felt/heard pretty easily if you pull/push the wheelbase tubing without the reinforcement), but the connecting struts of the Lock-Mod are primarily what increases the rigidity of the Playseat Challenge.

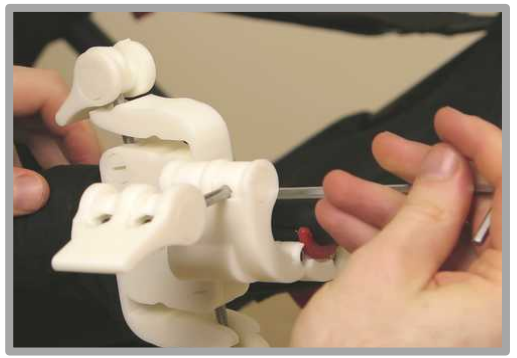
With that in mind, like with the rest of the kit, avoid over-tightening the part bolts. Doing so will only impede functionality and risk part failure, without any quantifiable gain in rigidity.

To attach the right hinge/clamp, start by removing the red plastic bushing and original rotating clamp as previously shown.

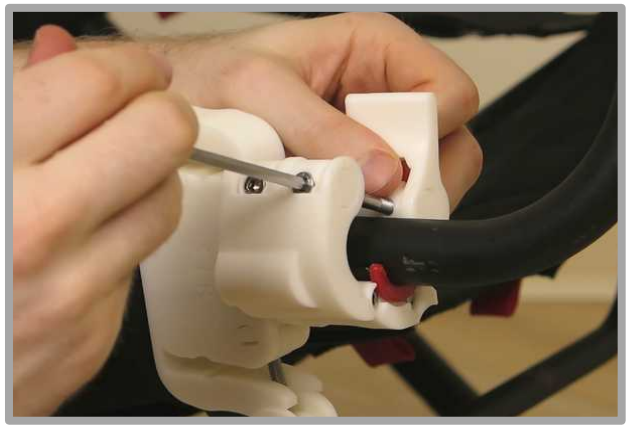


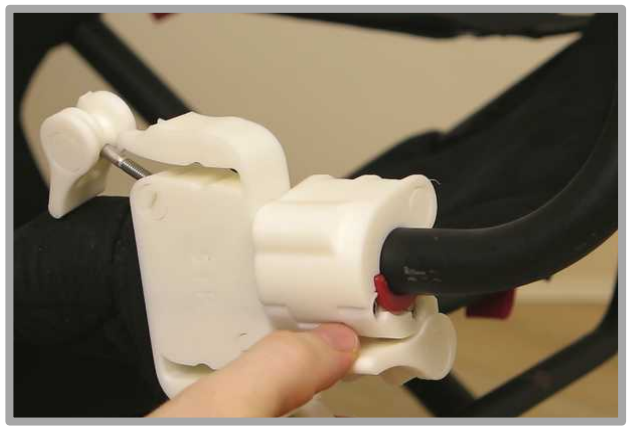
Slide the entire right hinge/clamp sub-assembly onto the tubing. Re-insert the red plastic bushing, with the it's bottom locating pin aligning the hinge/clamp and the tubing.





An internal M6 bolt is used to structurally reinforce the clamp when it is closed, and this can be adjusted if needed. A small amount of resistance should be felt when closing the clamp, and this can be increased/decreased by rotating the bolt clockwise/anti-clockwise.

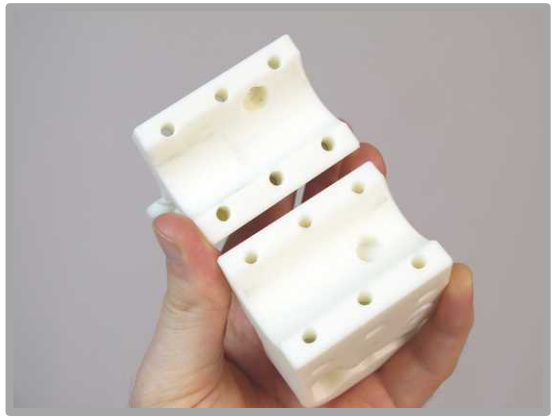




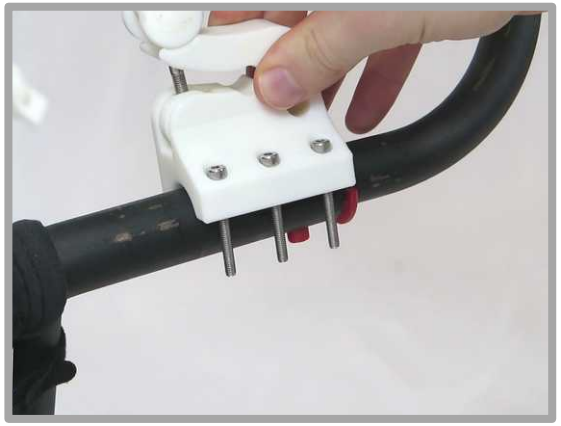
When adjusting the tension of the double cam lever, loosen the two bolts so that the cam lever closes easily when locking the wheelbase in place. While closed, tighten the clamp bolts to the specified torque.

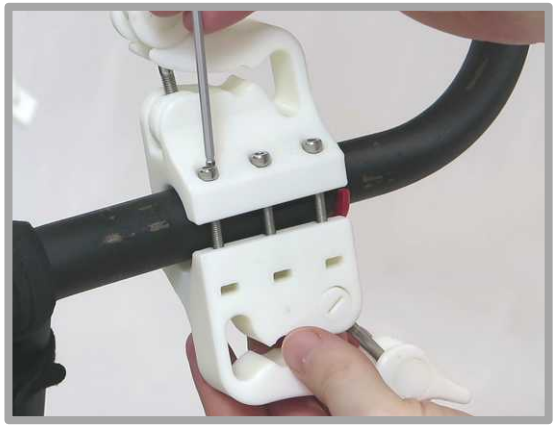
Wheelbase Hinge/Clamp Design: Static Clamp (Simplified Variation)

Starting with the right clamp, remove the original Playseat Challenge rotating clamp and place the red plastic bushing back into it's original place.

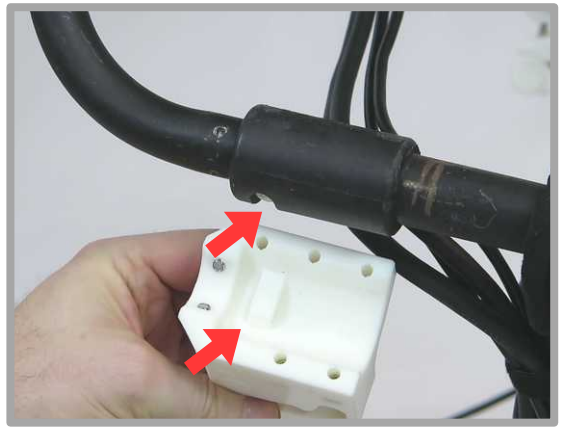


Now the right static clamp can be lined up and loosely bolted into position. Note that the recesses inside the clamp part should line up with the bolt/red plastic bushing tab to form a snug fit.

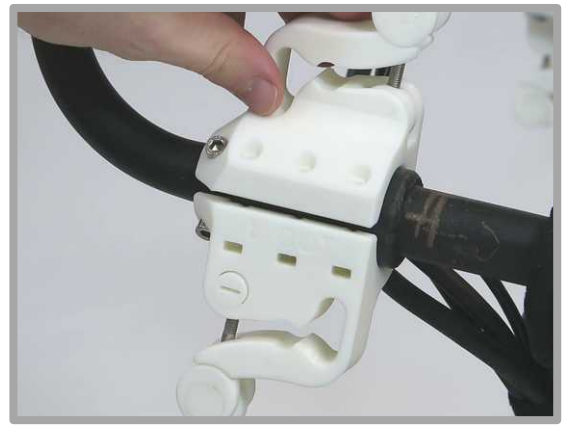




With all 6 bolts of the clamp in place, the side strut (and wheelbase strut if wheelbase plate is in the 'close' configuration) can be latched in place before fully tightening the 6 bolts to their specified torque.



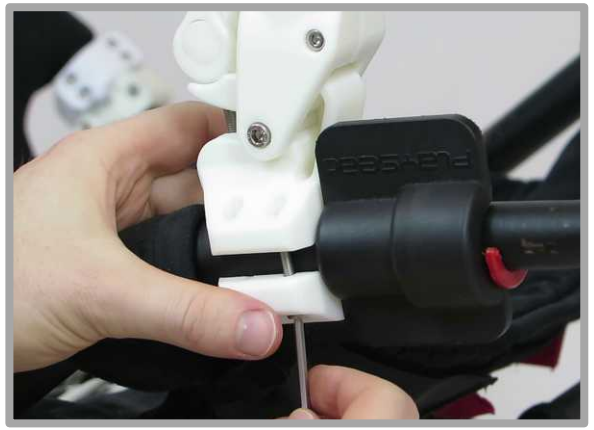
For the left static clamp, the bottom half has a locating tab that needs to be aligned with a slot on the underneath of the wheelbase hinge. Once pressed into place the top half can be put in place.

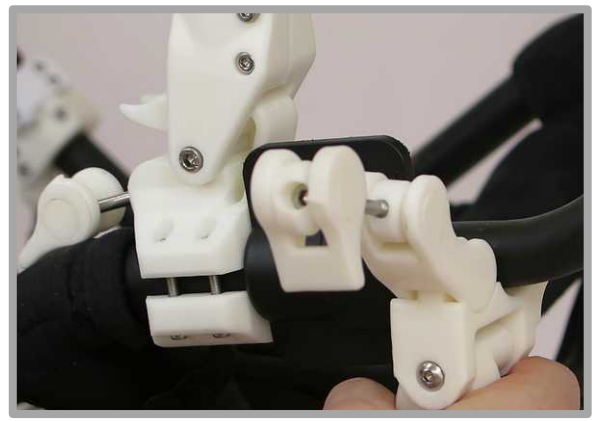


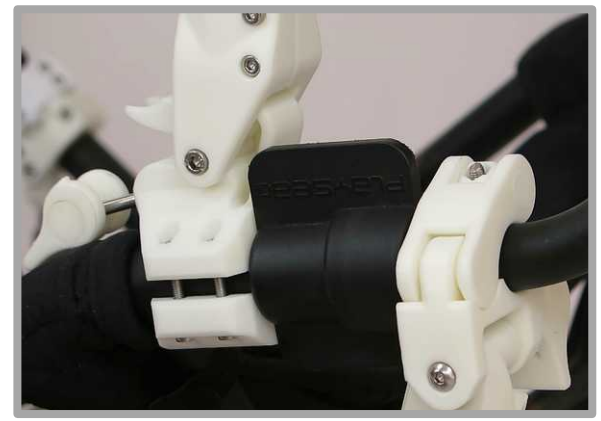
As with the right static clamp, the struts can now be latched into place and the 6 clamping bolts torqued to spec. This clamp is finished by tightening the 4 set screws to secure the wheelbase tubing in place, locking it in place.

Wheelbase Hinge/Clamp Design: Split Clamp (Compatibility Variation)

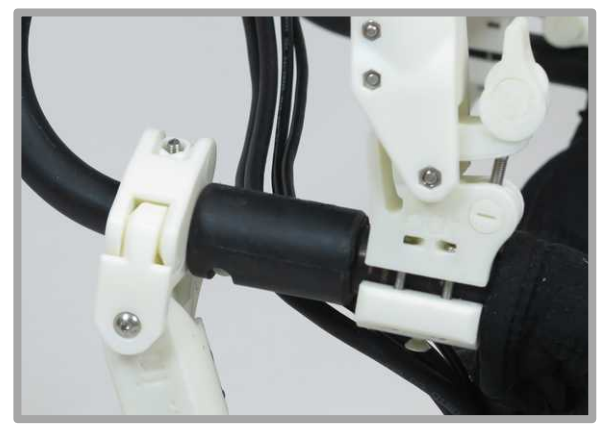
For split clamp design, start by latching the QR clamp into the wheelbase strut. To ensure correct positioning the Lock-Mod QR clamp should placed in position, and then the PSC rotating clamp should be moved into the locked position. The PSC clamp will sit against the Lock-Mod clamp. The bottom half of the Lock-Mod QR clamp can then be bolted into place.





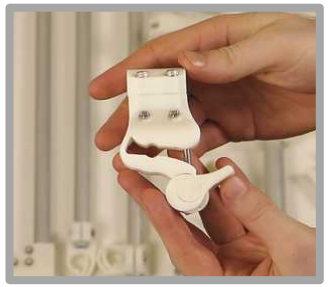


The side strut clamps can now be latched into place. The clamp should be as lose to the hinge/clamp as possible, and the position of the clamp set in it's final position before torquing all the bolts down (the lever cam should be torqued first to ensure the clamp is properly seated and tight against the PSC frame).



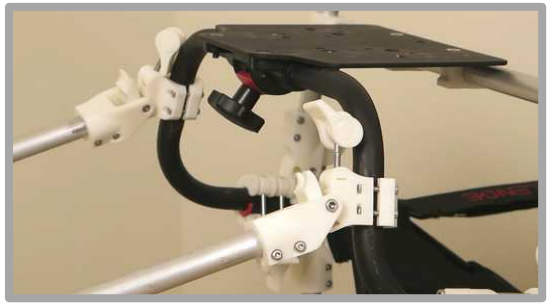
Large Pedal Struts: QR Clamps

These QR clamps are mounted to the PSC wheelbase tubing with the opening facing upwards. That aside there is a bit of flexibility in how these QR clamps are positioned, depending on a few factors.



Mounting them higher up on the PSC tubing will increase the stabilisation of the wheelbase due to the increased leverage, but the angle that the QR will smoothly attach/detach is limited (which will change depending on the set pedal height). In addition, if setting the wheelbase plate in the far (reversed) position, the struts may need to be lowered to accommodate your preferred wheelbase angle.

These factors will be finalised with the final positioning setup, so until then just loosely attached the QR clamps to the PSC tubing.




Attaching Peripherals & Driving Position

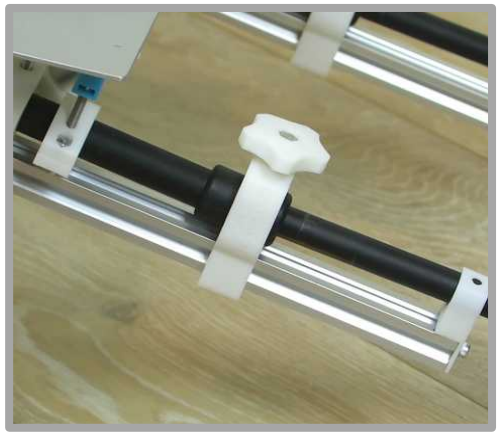
With the base Lock-Mod now built, any peripherals not already attached can now be mounted to the Playseat Challenge. Cables should be (if possible) removed from these peripherals, as cable routing will be dealt with last.

Any remaining Lock-Mod accessories can now be assembled & attached. Assembly manuals for all Lock-Mod accessories can be found **here**.

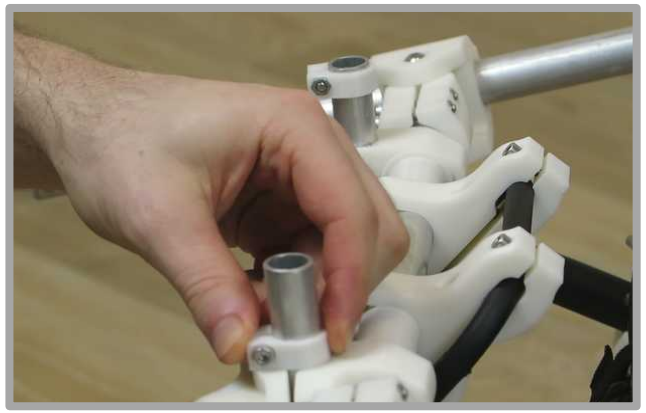
Now make any needed adjustments to attain your preferred driving position before going over the whole rig, tightening all Lock-Mod fasteners to the specified torque level.

To retain your set seating position between folding/unfolding, the telescoping tubing of the pedal tray needs to be marked with graphite while unfolded. This will ensure that you are able to quickly and accurately set the pedal tray length to the same position every time.





The pedal tray height adjuster has end-stop clamps to achieve the same function, which can now be set and tightened to retain your set pedal height.



Folding Test

When folding the Lock-Mod for the first time, check to ensure there is sufficient clearance between components at each step. Avoid forcing things in to place if they don't fit, as you may need to adjust the position of some parts or how they are folded depending on configuration choice.

When folding the rig, follow this order:

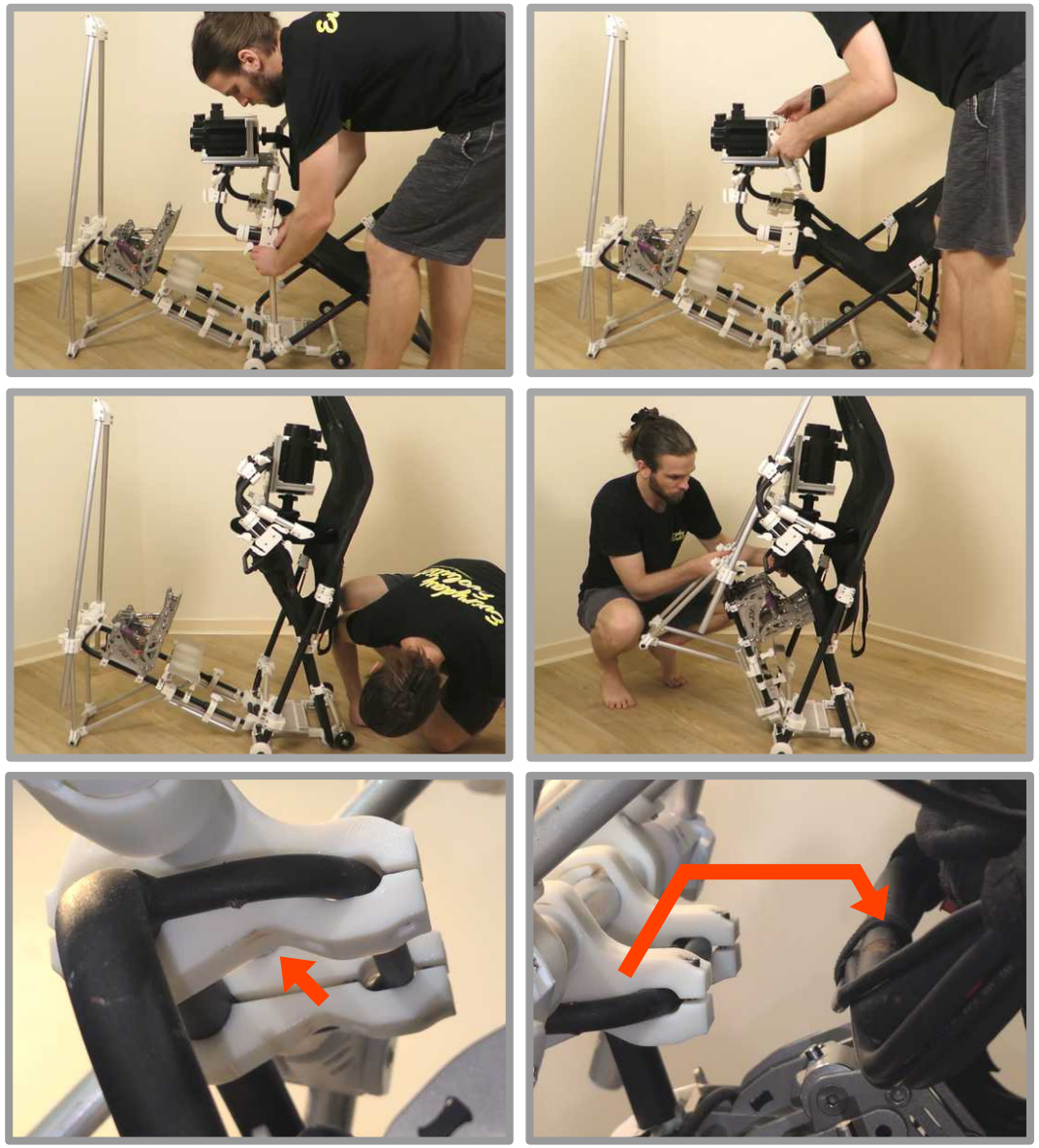
1) Unlatch large pedal struts.
2) Unlatch seat side struts and down.
3) *Fold the seat and lock closed with roller lock.
4) Fully retract pedal tray.
5) **Fold pedal tray up, hanging it on the PSC cross beam.
6) ***Retract the pedal tray height adjusters

Notes:

*The length of the roller lock can be adjusted to account for a bulky wheelbase and/or the side mount assembly and can be adjusted later if needed, but ensure that the set screws are tightened before fully folding to avoid the lock coming loose.

**There needs to be a small mount of clearance between the back of your pedal set and the pedal tray reinforcement assembly, as the PSC seat cross beam will slide between them when folding up (see picture 5 & 6).

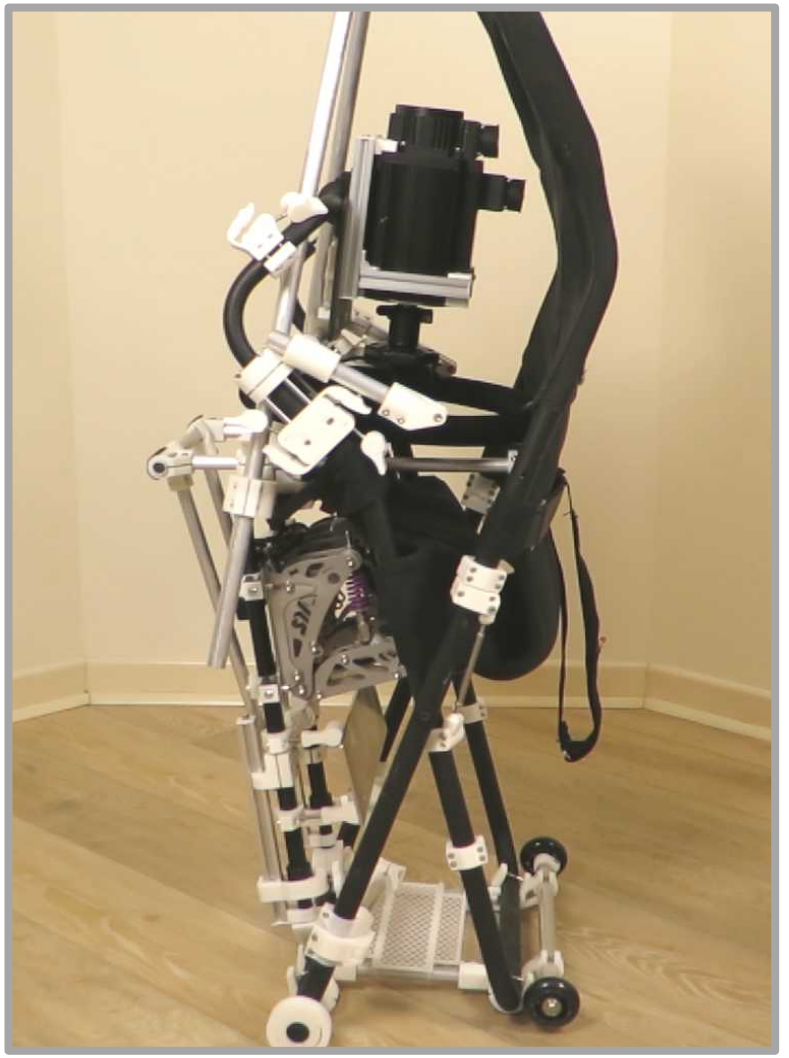
***The pedal height adjusters can interfere with the wheelbase when folded, depending on the configuration. The angle of the pedal height adjusters can be altered by changing the length of the bottom pedal struts.



With the Lock-Mod's first fold completed it's recommended to carefully unfold it to verify clearances. The order of operations for unfolding the rig generally goes like this:

1) Retract the pedal tray height adjusters
2) Fold pedal tray up, hanging it on the PSC cross beam.
3) Fully retract pedal tray.
4) Fold the seat and lock closed with roller lock.
5) Unlatch seat side struts and down.
6) Unlatch large pedal struts.

Folding & unfolding the rig a few times will help solidify the process and ensure that everything works as intended.



Cable Routing

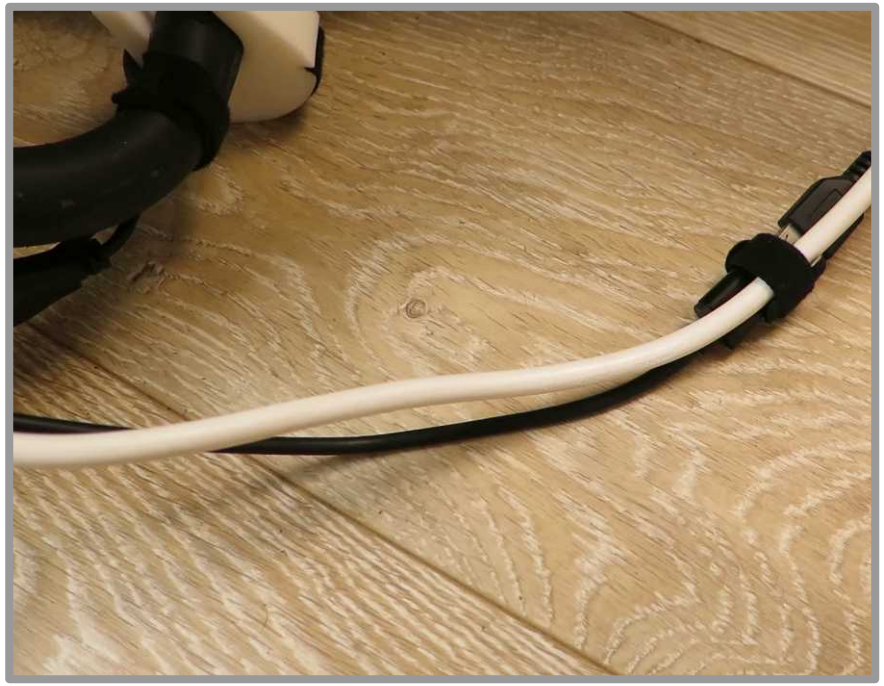
To make unfolding & folding the Lock-Mod as quick and easy as possible, it's recommended to route the cables along the PSC frame so that they can remain on the rig without fear of snagging or getting tangled. It does take a bit of time to get it sorted, but not having to figure out a spaghetti mess of cables before each play session makes it well worth it, especially if your setup includes more than just a wheelbase and pedals.

The following cable routing guide is applicable to any setup on the Playseat Challenge.

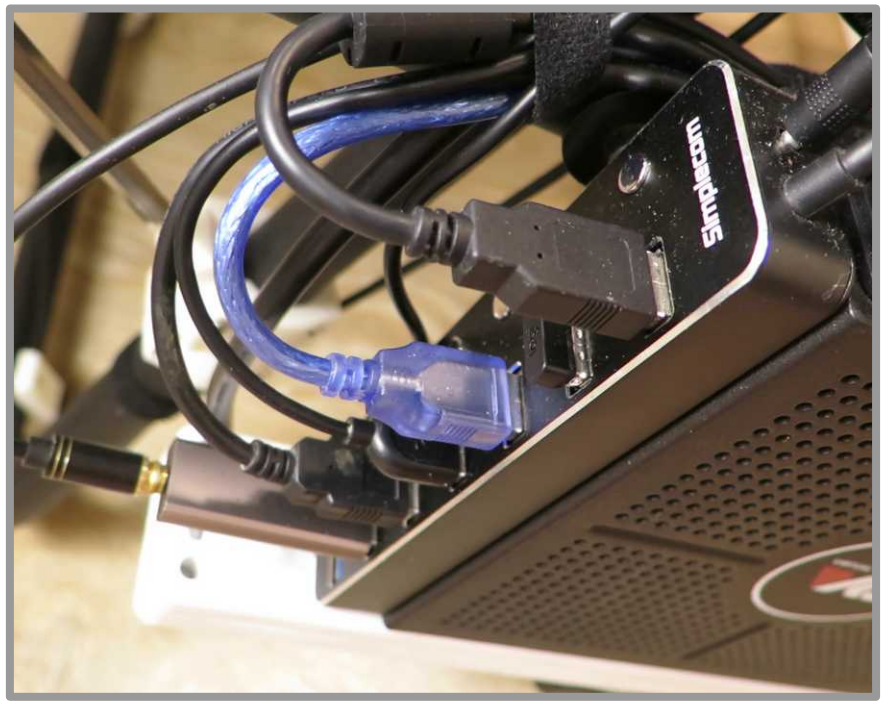
Accessories for Cable Management

The Lock-Mod kit comes with a set of 20 velcro zip ties for cable management. The following items can be purchased separately to further improve your setup:

- **Zip ties and/or cable sleeves**
  - In addition to the included velcro zip ties, additional zip ties or even cable sleeves can be useful if you're rig has a lot of cables.
- **Powerboard**
  - If you have more than one accessory that needs active power delivery then a powerboard mounted to the PSC frame is recommended, as only a single power cable needs to be plugged in when setting up for a session.



- **USB hub (powered) and USB cable extender**
  - A USB hub to manage your USB devices is highly recommended, although may not be necessary if your devices interface with a proprietary wheelbase hub (Thrustmaster, Logitech, etc).
  - A powered USB hub should be used to avoid issues related to signal degradation. There is a limit to the length of a passive USB cable before loss of data occurs unless it is repeated with a powered device (powered USB hub, actively powered USB cable, etc). This length can be calculated from the last powered USB outlet (powered USB hub, computer USB port, etc) to the USB device.
  - USB 2.0 is the ideal standard for sim racing; the 480mb/s data rate limit is not an issue (in almost all standard use cases), it has the longest passive cable length of any USB standard (5 meters, *vs* USB 3's 2-3 meters), and does not interfere with 2.4Ghz wireless devices like USB 3 does. Technically USB 2.0 does induce an extra *fraction* of a millisecond of latency compared to USB 3, but this is impossible for humans to notice.
  - Finding quality USB 2.0 hubs can be difficult, but a work-around is to pair a USB 3 hub that has USB 2.0 backwards compatibility (practically all USB 3 hubs support this) with a USB 2.0 cable extender connecting to your computer, which can be found easily and cheaply. This forces the USB 3 hub to operate as a USB 2.0 hub.

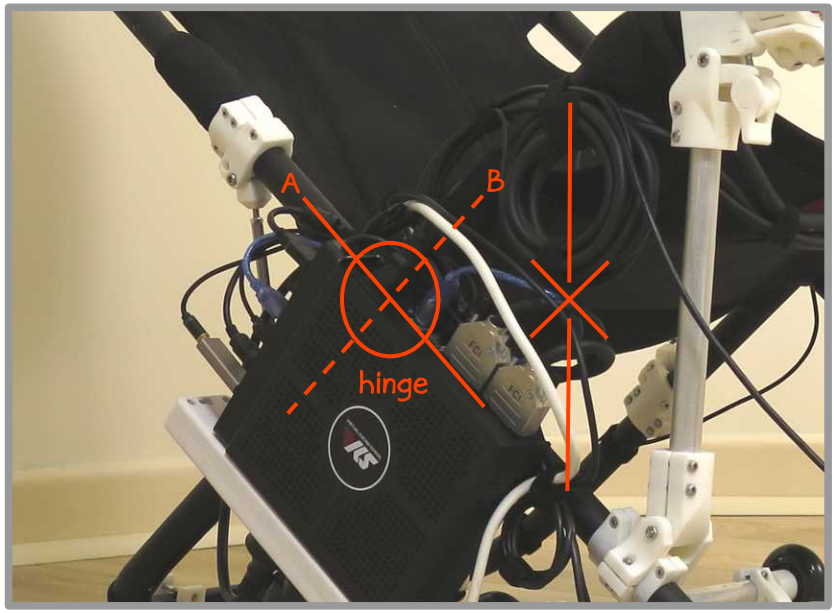


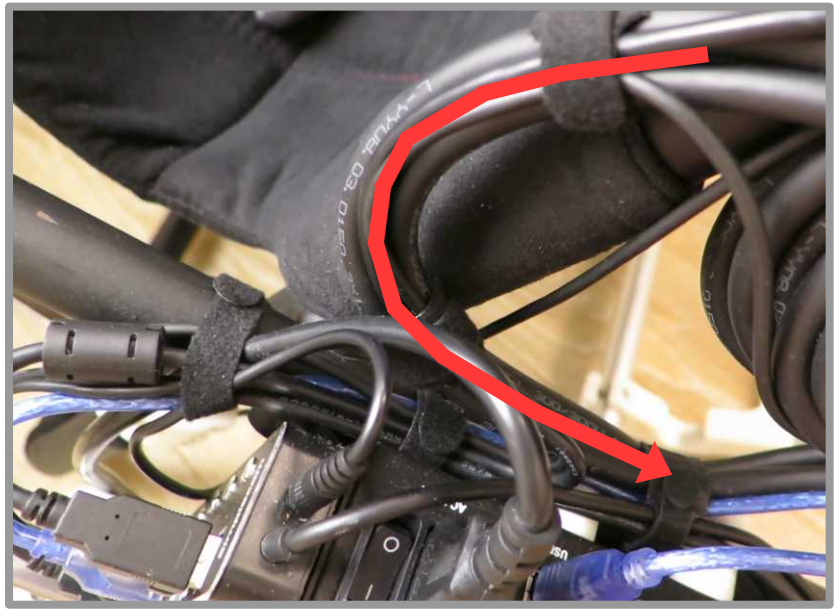
Cable Routing Guidelines

Special care needs to be taken when routing cables from the tubing of section **A** to section **B**. Cables that go between these sections need to be routed close to the **hinge**.

This path will keep the distance the cable needs to traverse roughly the same when the rig is folded/unfolded. Using a more direct path would require a large amount of slack to avoid the cable overextending when the rig is folded.

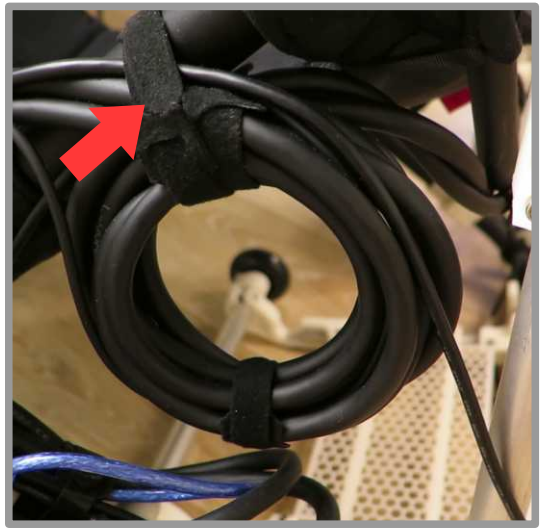
Once the cable path has been tied down with the zip ties, start folding the rig to see how the cable moves. The aim should is to minimise the cable being stretched, balanced with reducing the cables' freedom of motion to reduce the risk of it snagging on something.

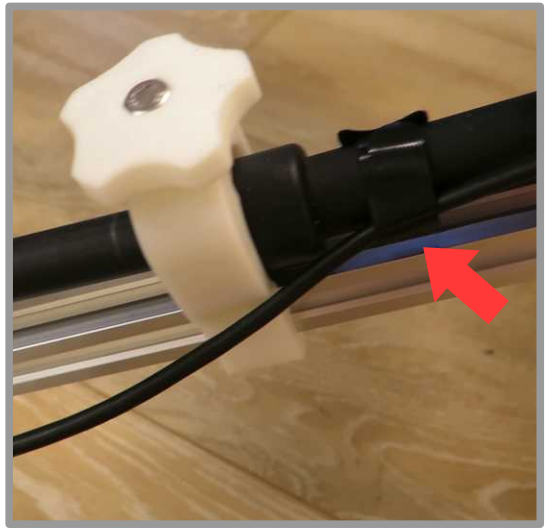


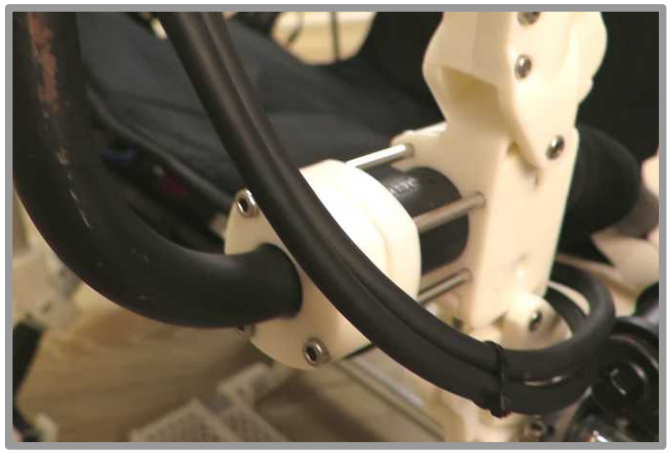


Cable running between the main rig and the pedal tray needs a different approach. Due to the pedal tray extending/retracting when folding/unfolding, a fairly large amount of cable slack is required. The zip tie anchor points shown in the image below gives enough slack to prevent the cable over-extending while also keeping the it from dragging along the ground when moving the folded rig.

A good way to estimate the length needed is to set the cable up so that it droops to just above the pedal tubing (example picture shows cable slightly longer than necessary).



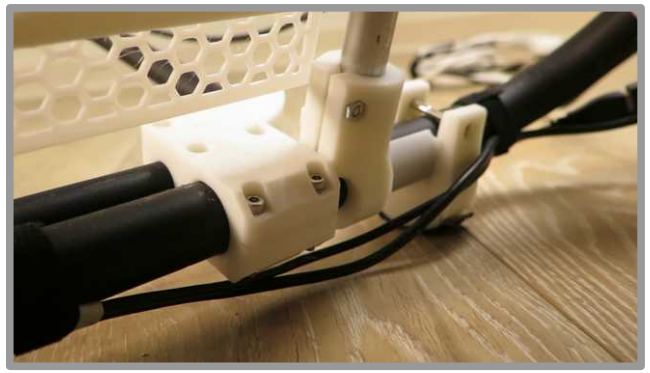




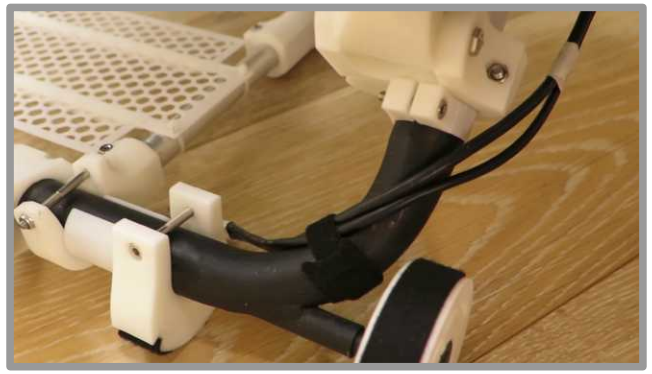
If you want to retain the functionality of opening/closing the wheelbase then any cables going to the wheelbase area should be routed around the outside of the left hinge. If not then outside the right hinge is viable as well.

For cables going along the tubing directly underneath the seat fabric, the two points that the pedal tray interfaces with need to be kept clear.

A good place to coil excess cable is just below the seat fabric velcro on the PSC tubing. Here it doesn't interfere with folding and won't drag along the ground when folded.

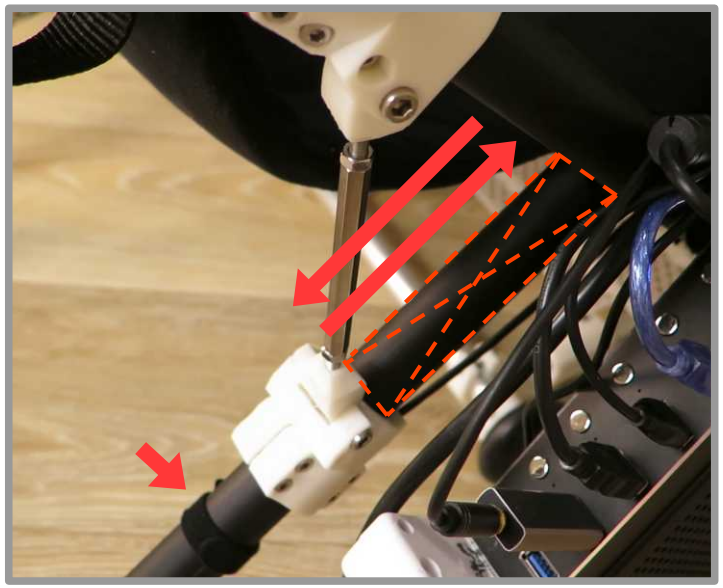


For cables going along the bottom-front tubing, route the cables behind the pedal feet and underneath the roller lock struts, and zip tie in place outside of both front feet and to the middle of the tubing. With a small amount of slack in the cable, this arrangement will allow folding/unfolding without risk of damage to the cables.



Cables going to the side mount assembly should be routed over the front of the front leg tubing. If routed behind the tubing the cable can be over-extended when the assembly rotates and folds inside of the Playseat Challenge legs.

Cable that runs along the back leg tubing needs to be run along the top to not interfere with the locking mechanism. In addition to the zip ties, the rear feet can be used to hold cables in place, depending on how thick they are.



If using the strap replacing struts, leave clear the section that the struts ride along when folding/unfolding.

Final touches

With the cable routing complete, the final step is to slowly and *carefully* fold and unfold the rig, checking for possible problems in your cable layout. Keep in mind that it's quite easy to damage your gear if a cable gets pulled taught, especially if the Playseat is setup with heavy gear.

After going through those final checks, the Playseat Challenge: Lock-Mod is ready to use.

Happy racing~