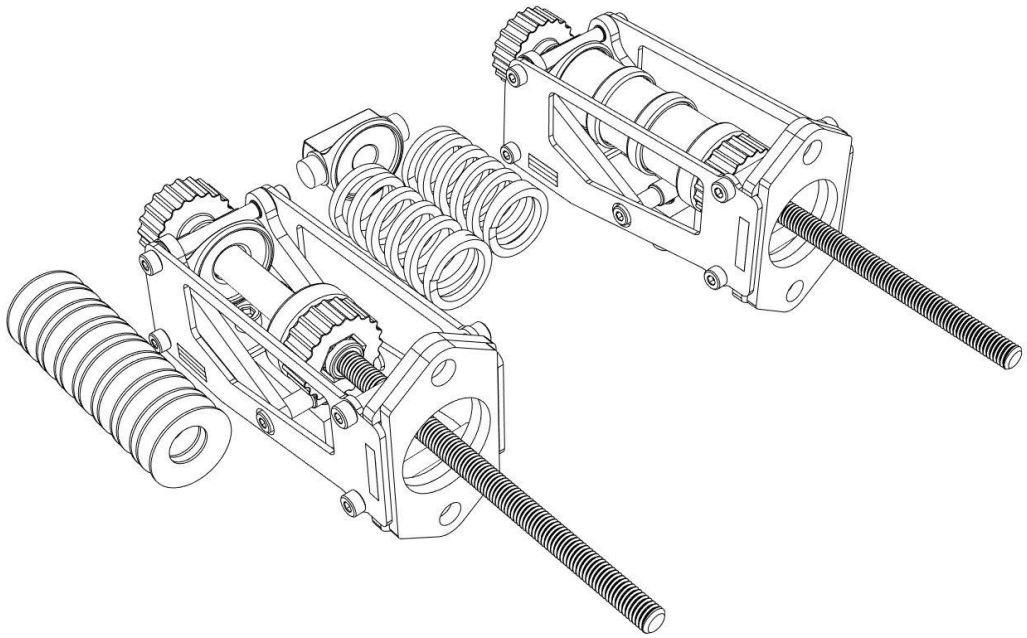
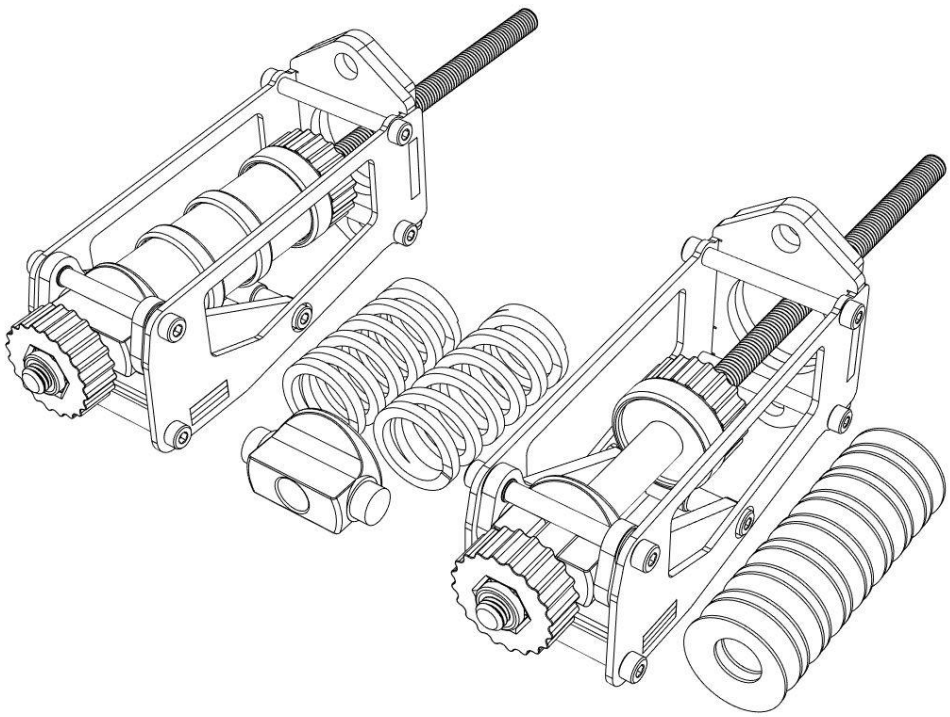
SIMPROLOUGE

innovation is progress

- Assembly Instructions -

SimCylinder DIY Kit





Read First

Read before assembly

⚠ Read carefully and fully understand the instructions before commencing assembly. A supervising adult should also read the instructions if a child assembles the kit.

⚠ When assembling this kit, tools including knives are used. Extra care should be taken to avoid personal injury.

⚠ When assembling be careful with the laser cut parts. Some of them could have burrs on the edges. Handle them with care or use a metal file for carefully deburring them to avoid personal injury.

⚠ Only use appropriate tools for assembly.

⚠ If you are in doubt or unsure about a detail or need help of any sort while assembling, don´t hesitate to contact us (see last page for details).

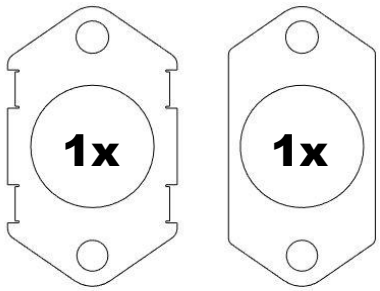
⚠ SimCylinders are only designed to be used as HID for Personal Computers. They are not designed to be used in land, air, sea or motorsport vehicles of any kind. If you plan to use them in a different application, please get in contact with us.

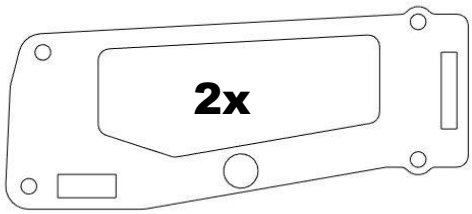
⚠ We are not responsible for malfunctions or personal and material damages/injuries due to unappropriate use or build of the SimCylinders.

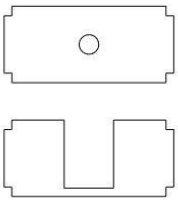
⚠ We are not responsible for malfunctions and damage caused by third party suppliers, like manufacturer of pedalboxes or other components you choose to use for your build.

Parts Overview – 1 SimCylinder Kit

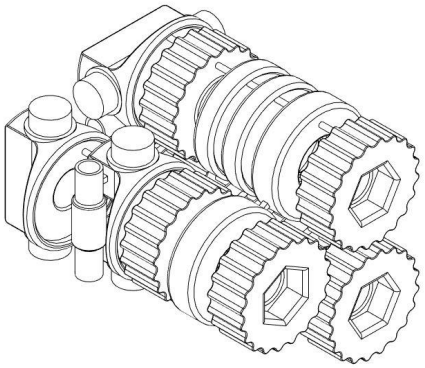
Lasercut Parts (3x per Kit)







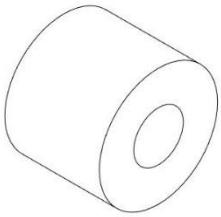
3D printed Parts (sold separately)**



3D printed Parts must be ordered separately through our ***i.materialise-shop* and do not come with the kit.
You can find the link to our shop on our homepage (https://www.simprolouge.com/start/products/simcylinder/)

Parts are 3D printed requiring removal from sprue and some pre-assembly.

Brake specific Parts



Fibroflex/Fibroelast Rubber Springs:

4x L=20mm Red 95 Shore A
4x L=25mm Red 95 Shore A

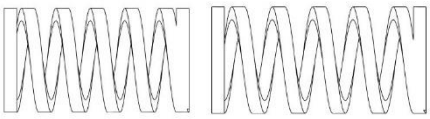
4x L=20mm Yellow 90 Shore A
4x L=25mm Yellow 90 Shore A

4x L=20mm Green 80 Shore A
4x L=25mm Green 80 Shore A

4x L=20mm White 70 Shore A
4x L=25mm White 70 Shore A

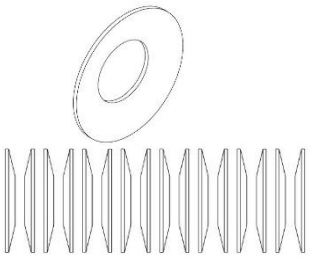
Clutch specific Parts (2 Versions)

Version 1
Coil Spring

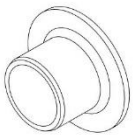


1x L=44mm **1x L=51mm**

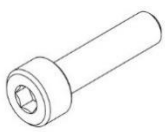
Version 2
Belleville Springs



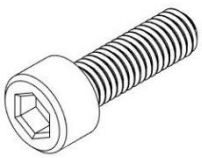
Nuts, Bolts, Rods, Bearings



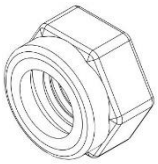
6x



30x M4x16

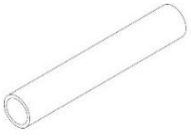


6x M5x16

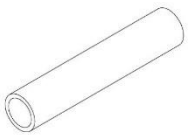


9x M8;
9x 5/16 UNF

12x D5 M4 L40



3x D5 M4 L30

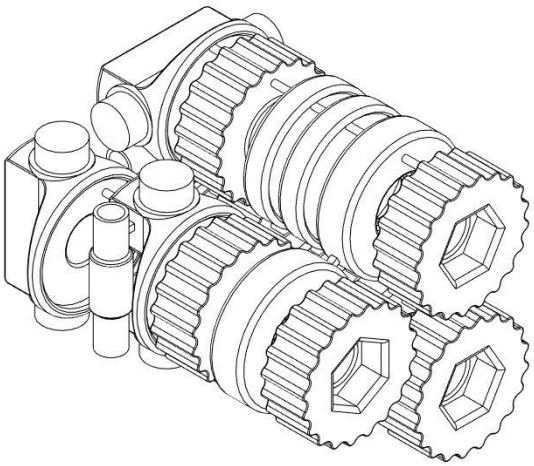


1x Tube D12

1x M8 L=300mm; 1x 5/16 UNF L=300mm

SimCylinder Assembly

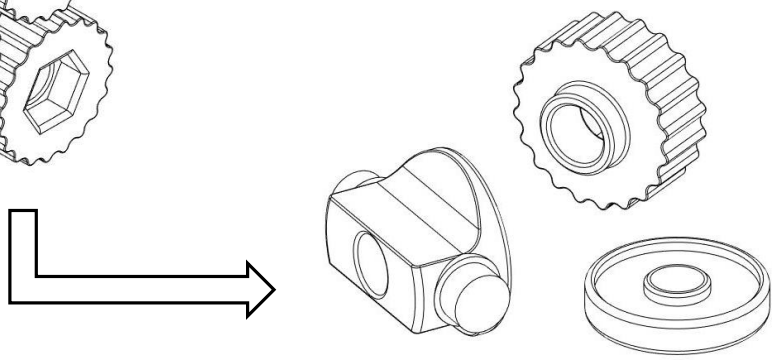
Prepare 3D printed parts



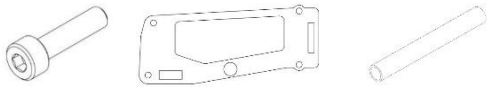
Parts are 3D printed requiring removal from sprue and some pre-assembly.

Separate the parts from each other by carefully pulling and twisting them.
The sprue can also be carefully removed with a side cutter.

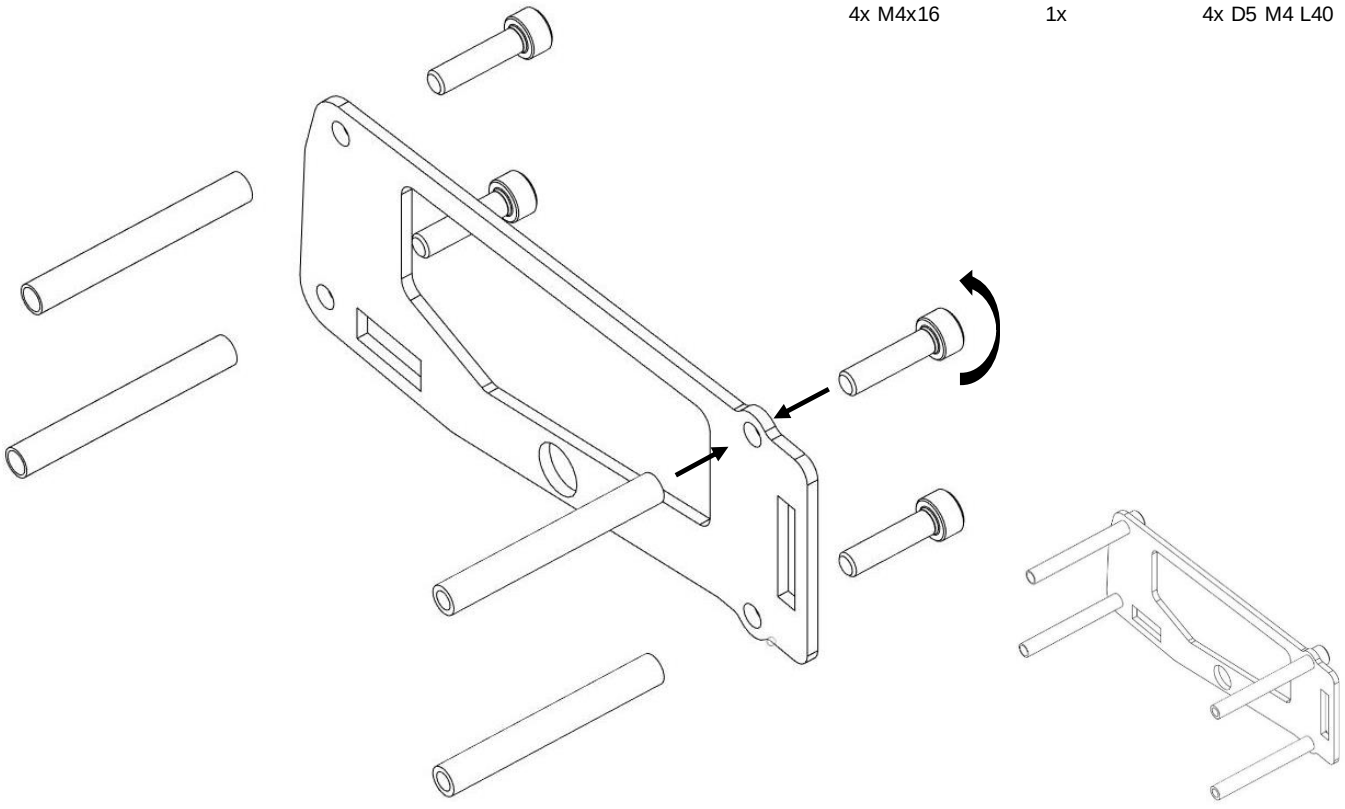
Remove any remains of the sprue carefully with a craft knife.



1

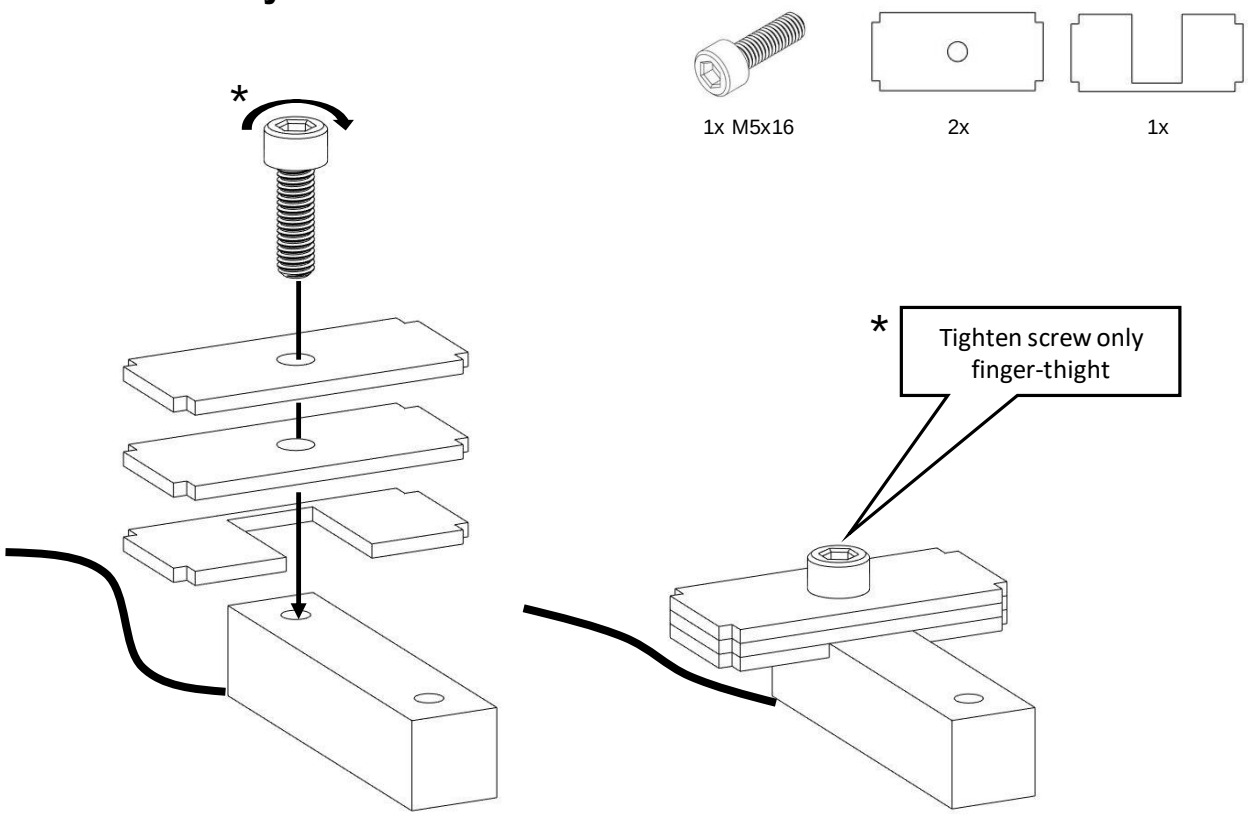


4x M4x16 | 1x | 4x D5 M4 L40

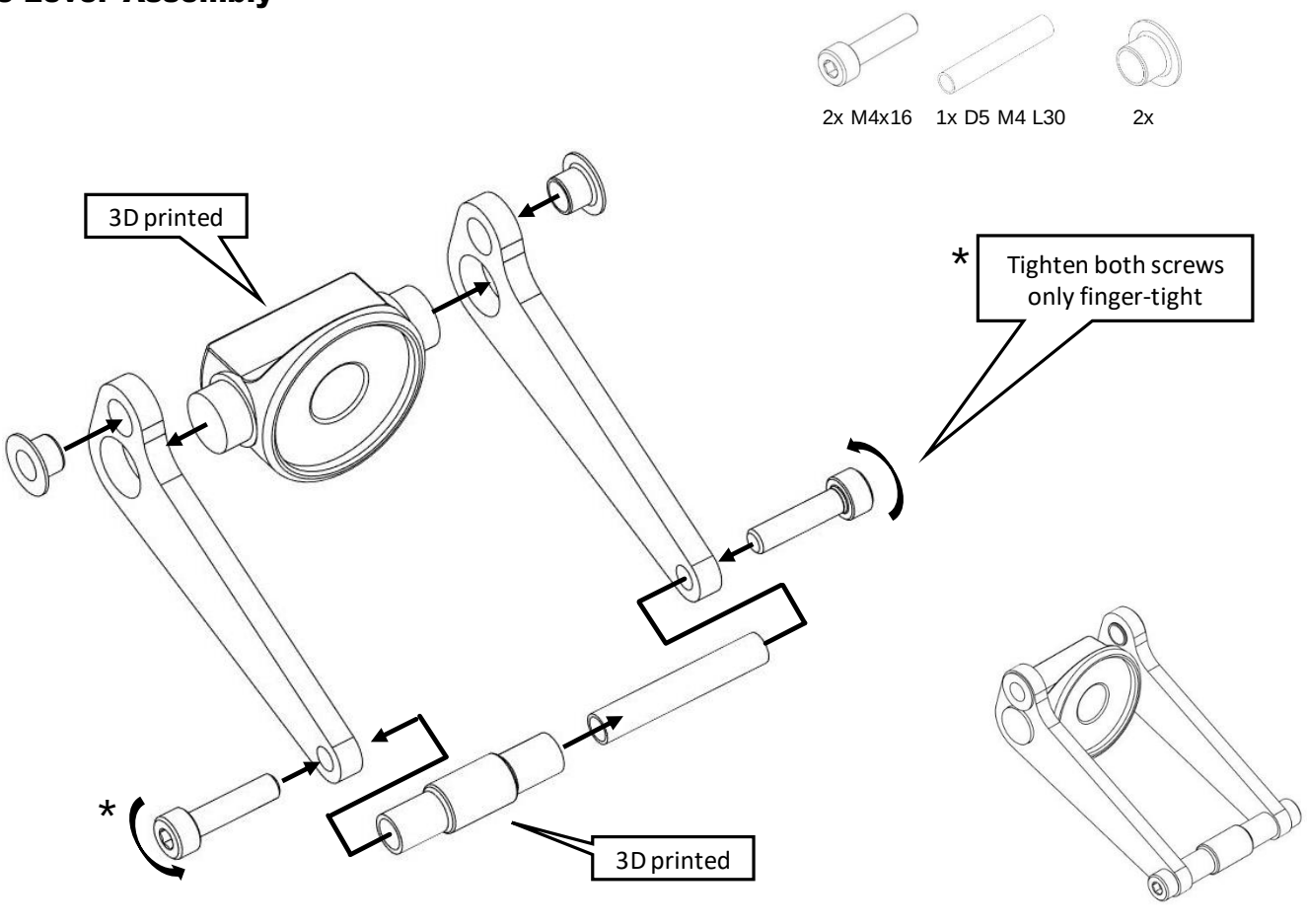


SimCylinder Assembly

2 Loadcell Assembly

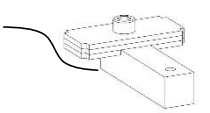


3 Lever Assembly

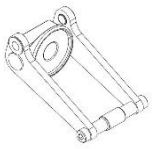


SimCylinder Assembly

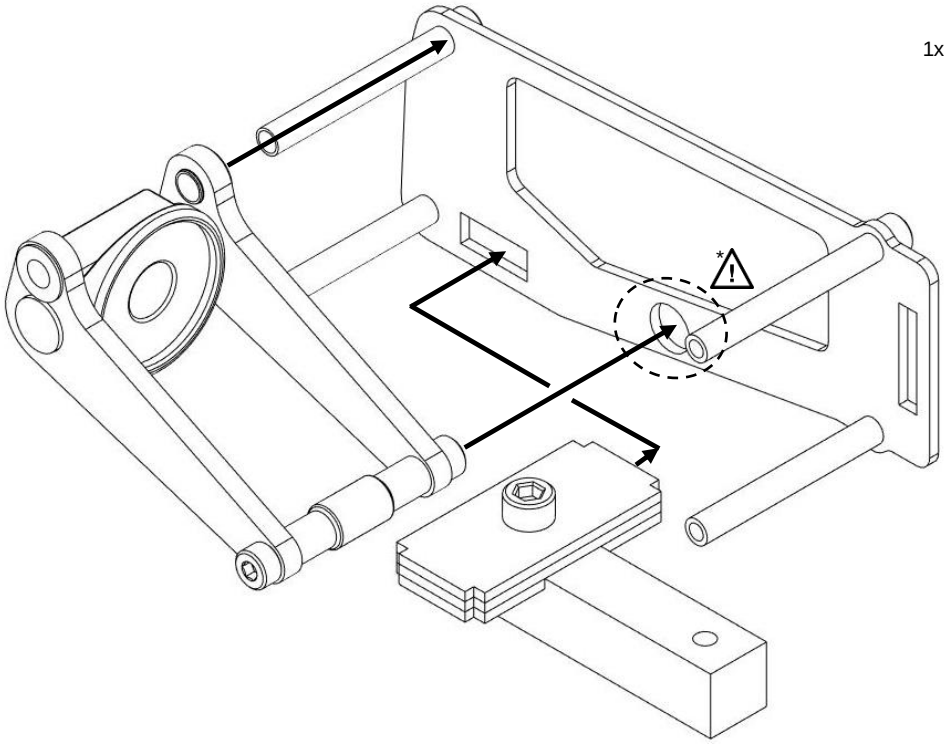
4

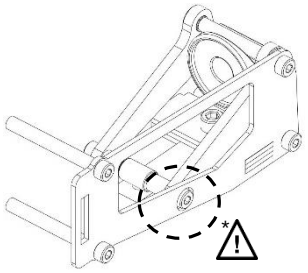


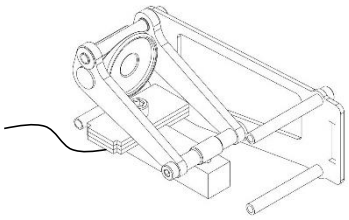
1x Loadcell Assembly



1x Lever Assembly

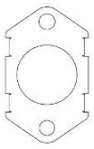




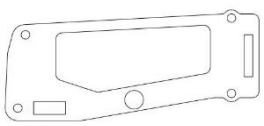


5

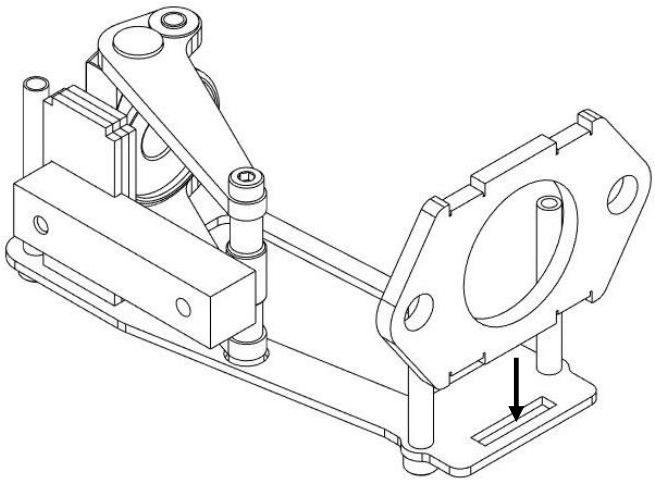
4x M4x16

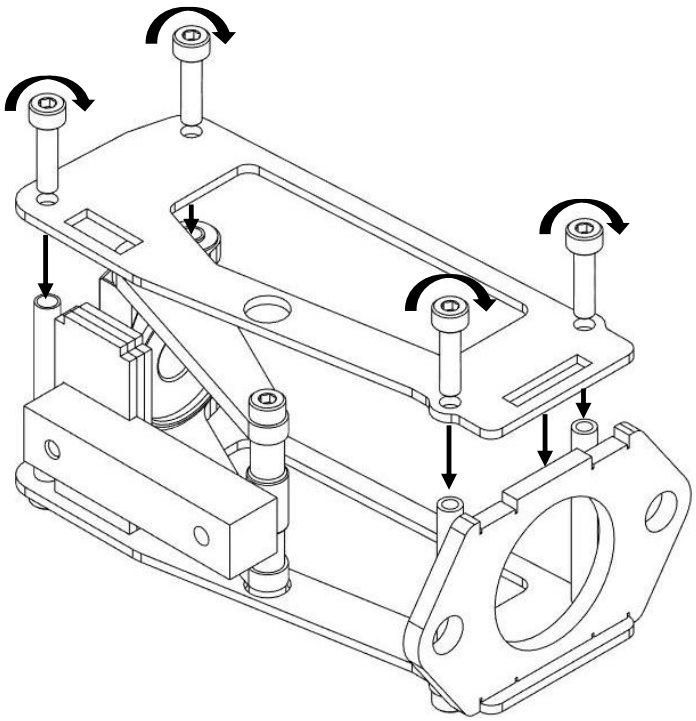


1x



1x



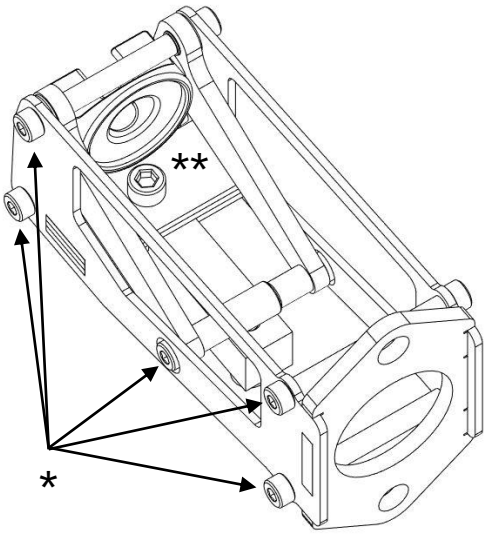


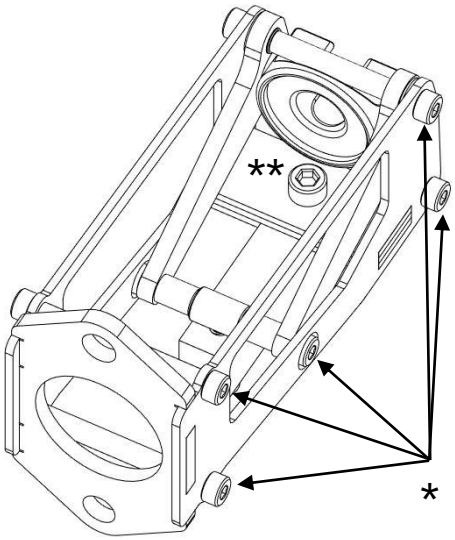
SimCylinder Assembly

6 Tighten Screws

Tighten up all screws marked with *.
Tighten loadcell assemby screw , marked with **, last.

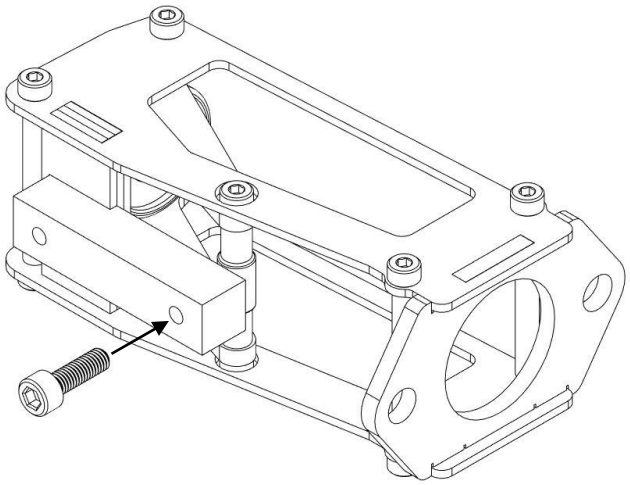
Apply tightening tourque of 2Nm on all screws.

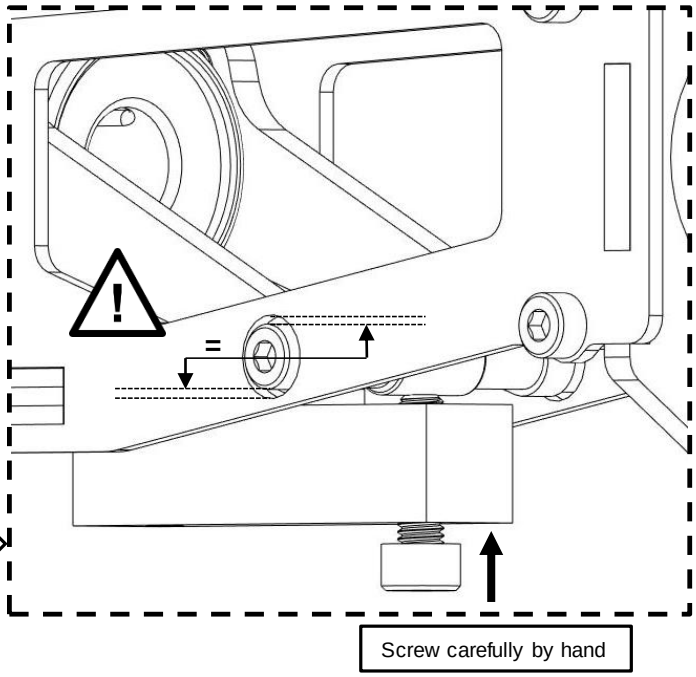


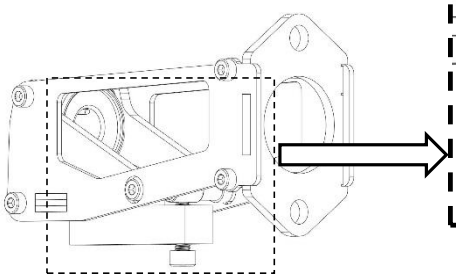


7 Loadcell/Lever adjustement

1x M5x16







Screw carefully by hand

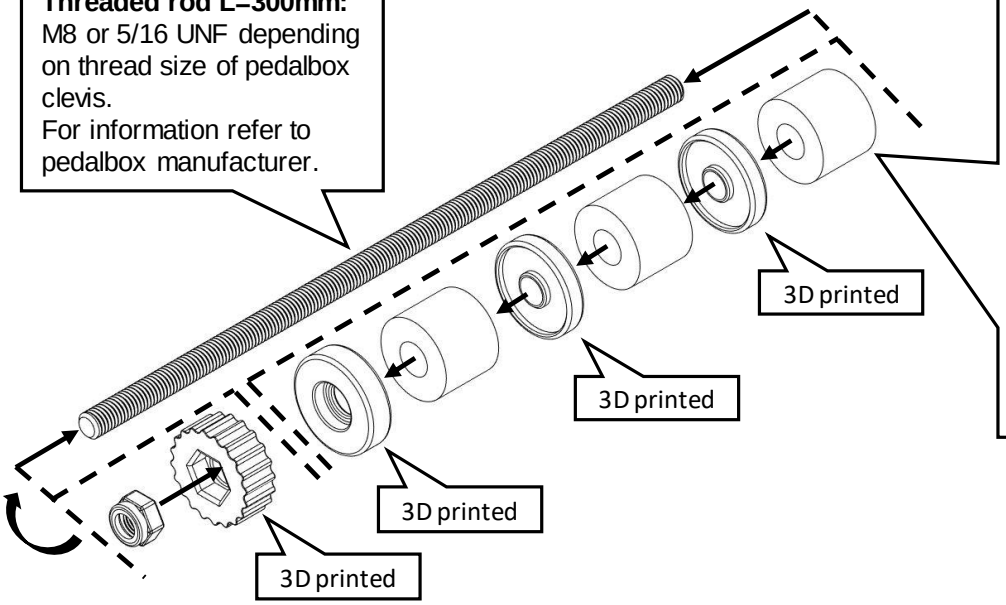
SimCylinder Assembly

8 Brake Assembly (2x)

1x M8
or
1x 5/16 UNF

Fibro Rubber Springs

Threaded rod L=300mm:
M8 or 5/16 UNF depending on thread size of pedalbox clevis.
For information refer to pedalbox manufacturer.

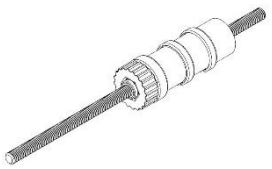


Fibro Rupper Springs:
The number and hardness of the Rubber Springs used depends on the preferred feel of the brake pedal.
Min. Spring count is one, max. Spring count is three.

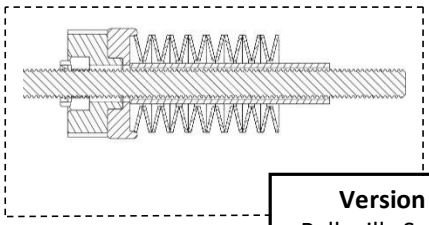
Less Springs = shorter pedal travel and harder feel and vice versa.

Each Kit comes with a variety of rubber springs.

Please use the same count and hardness of the springs for both brake pedal SimCylinders



9 Clutch Assembly (1x)



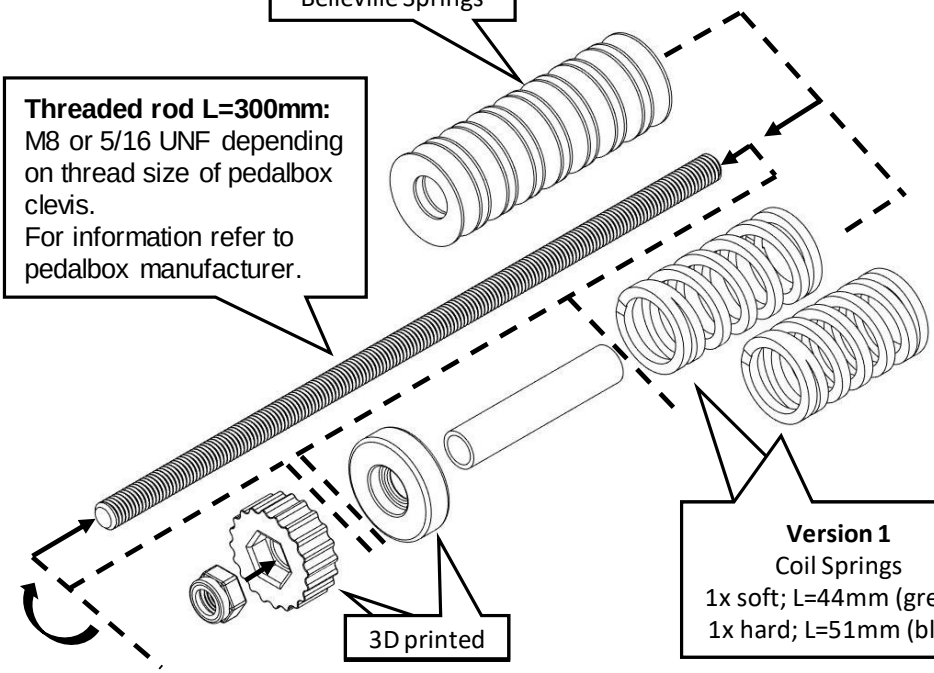
1x M8
or
1x 5/16 UNF

Belleville Springs

Coil Springs

Version 2
Belleville Springs

Threaded rod L=300mm:
M8 or 5/16 UNF depending on thread size of pedalbox clevis.
For information refer to pedalbox manufacturer.

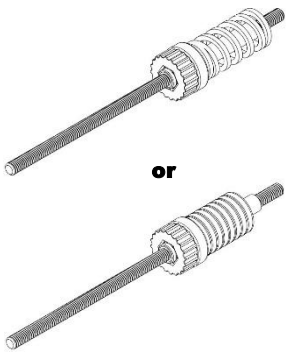


Version 1
Coil Springs
1x soft; L=44mm (green)
1x hard; L=51mm (blue)

Clutch Assembly:
Each Kit comes with parts for two versions for the clutch assembly.

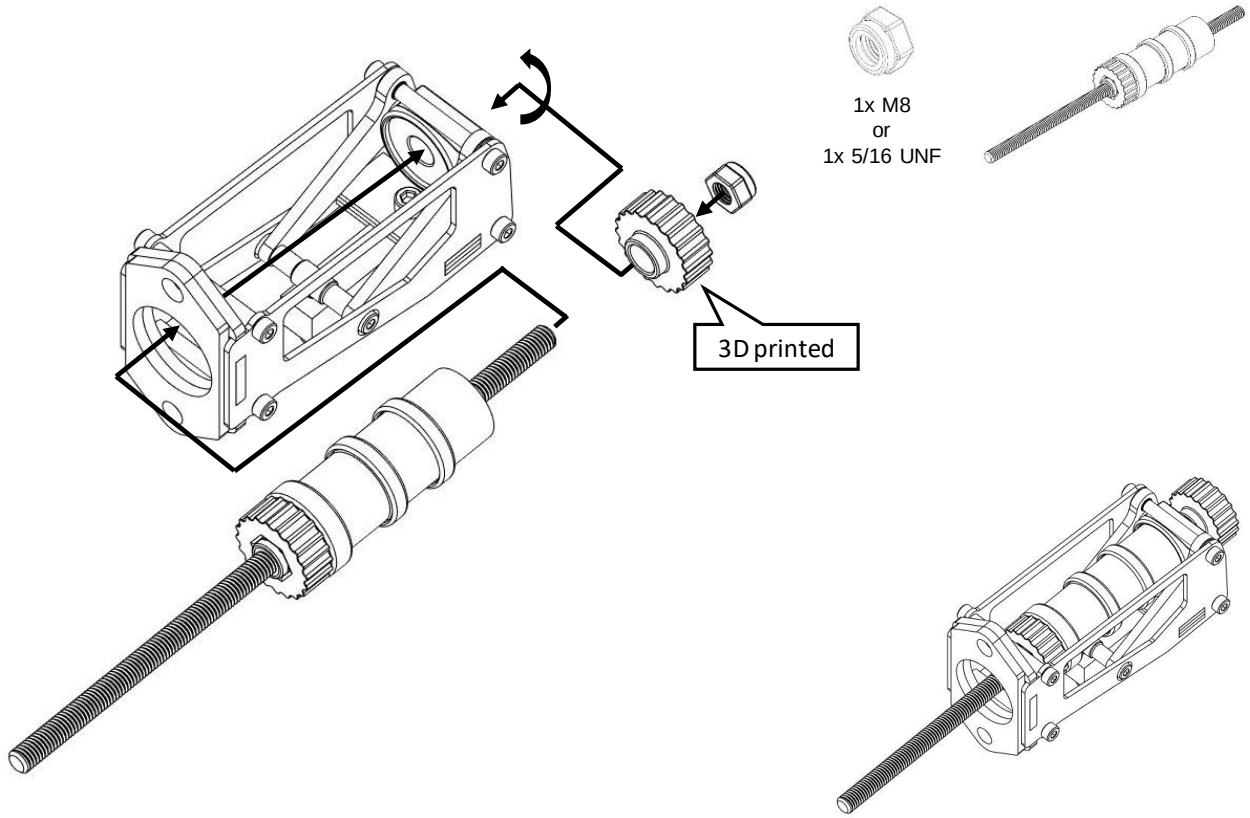
Version 1 features Coil Springs. There are two Coil Springs included that differ in strength and length.

Version 2 features Belleville Springs.
This provides a degressive pressure over pedal travel which is closer to the feel of a real clutch. As they are not made for continous operation they tend to break over time and have to be replaced.
They are included to provide the option to use them for your build.

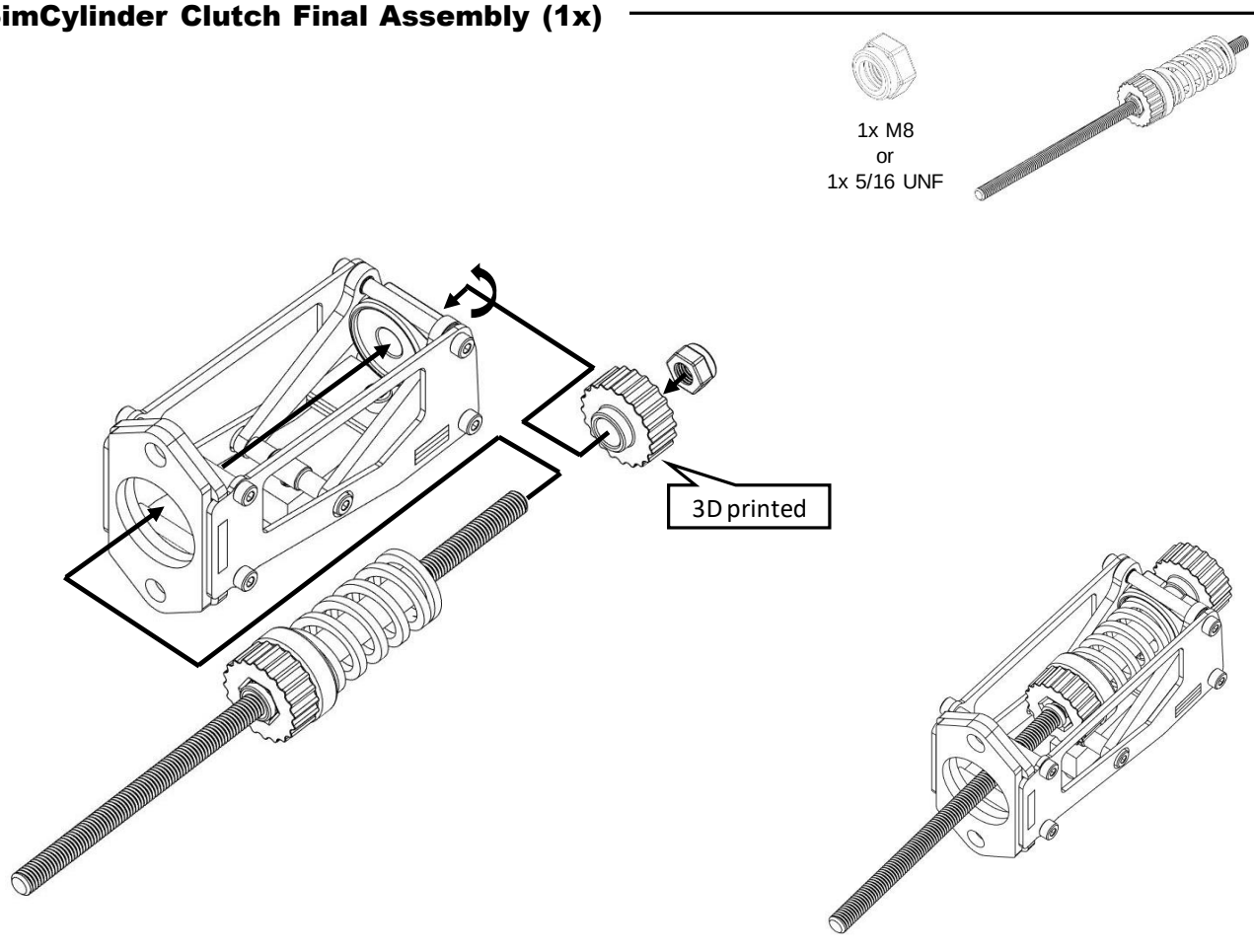


SimCylinder Assembly

10 SimCylinder Brake Final Assembly (2x)



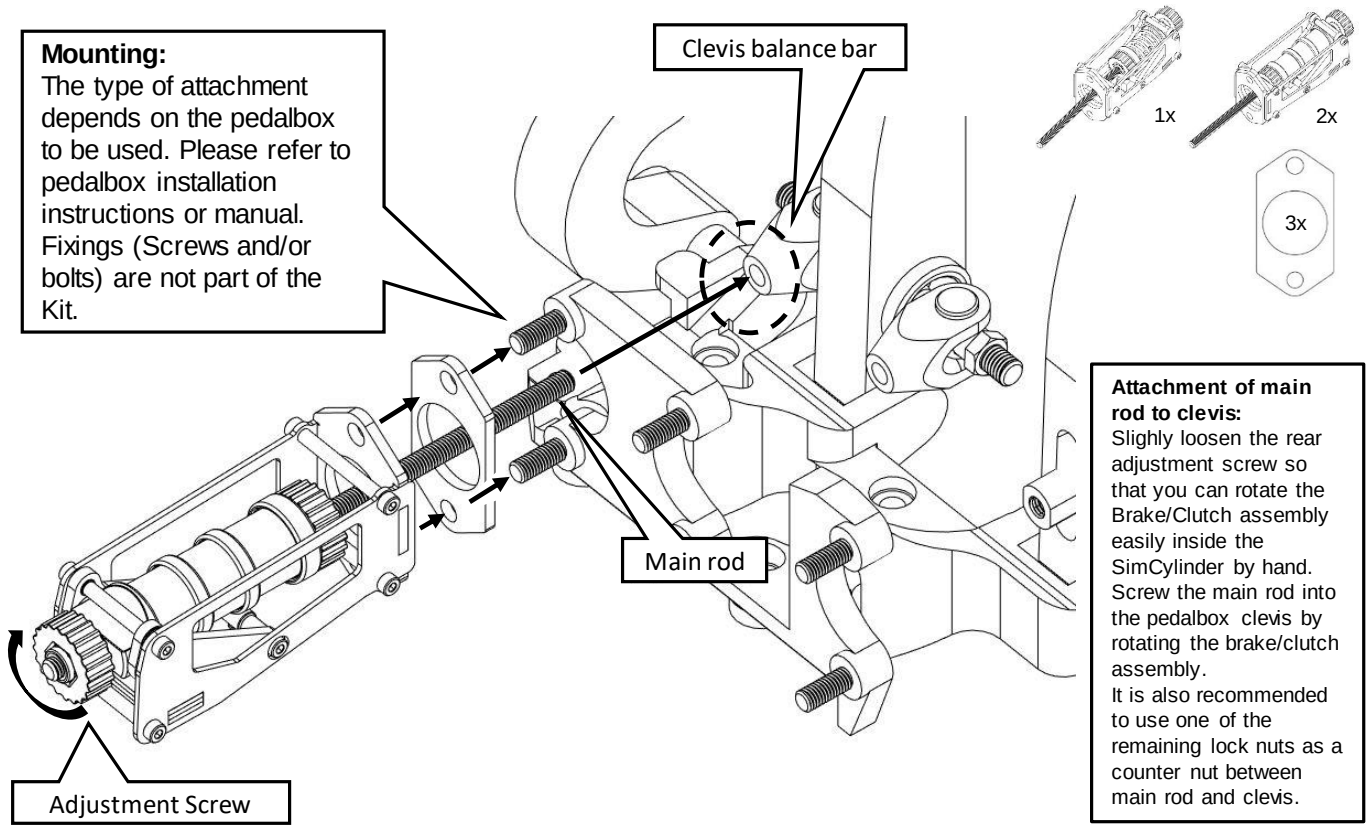
11 SimCylinder Clutch Final Assembly (1x)



SimCylinder Assembly

12 SimCylinder Pedalbox Mounting (repeat for all three SimCylinders)

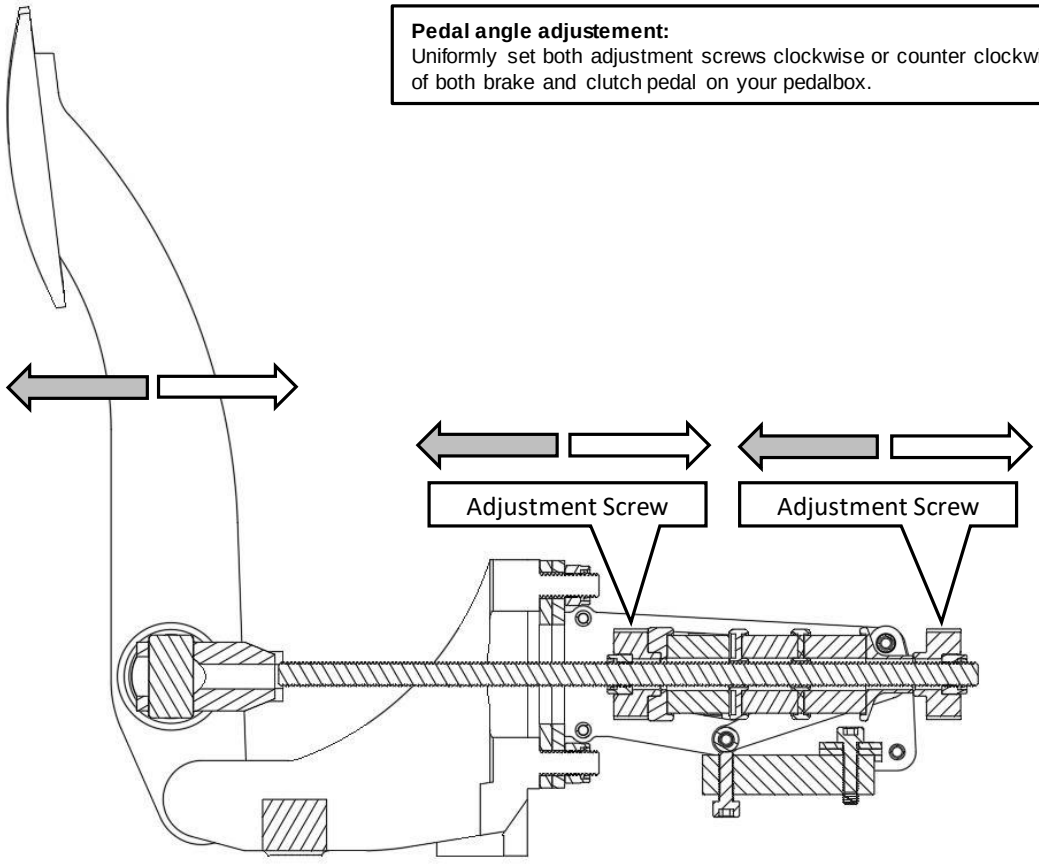
Mounting:
The type of attachment depends on the pedalbox to be used. Please refer to pedalbox installation instructions or manual. Fixings (Screws and/or bolts) are not part of the Kit.



Attachment of main rod to clevis:
Slighly loosen the rear adjustment screw so that you can rotate the Brake/Clutch assembly easily inside the SimCylinder by hand. Screw the main rod into the pedalbox clevis by rotating the brake/clutch assembly.
It is also recommended to use one of the remaining lock nuts as a counter nut between main rod and clevis.

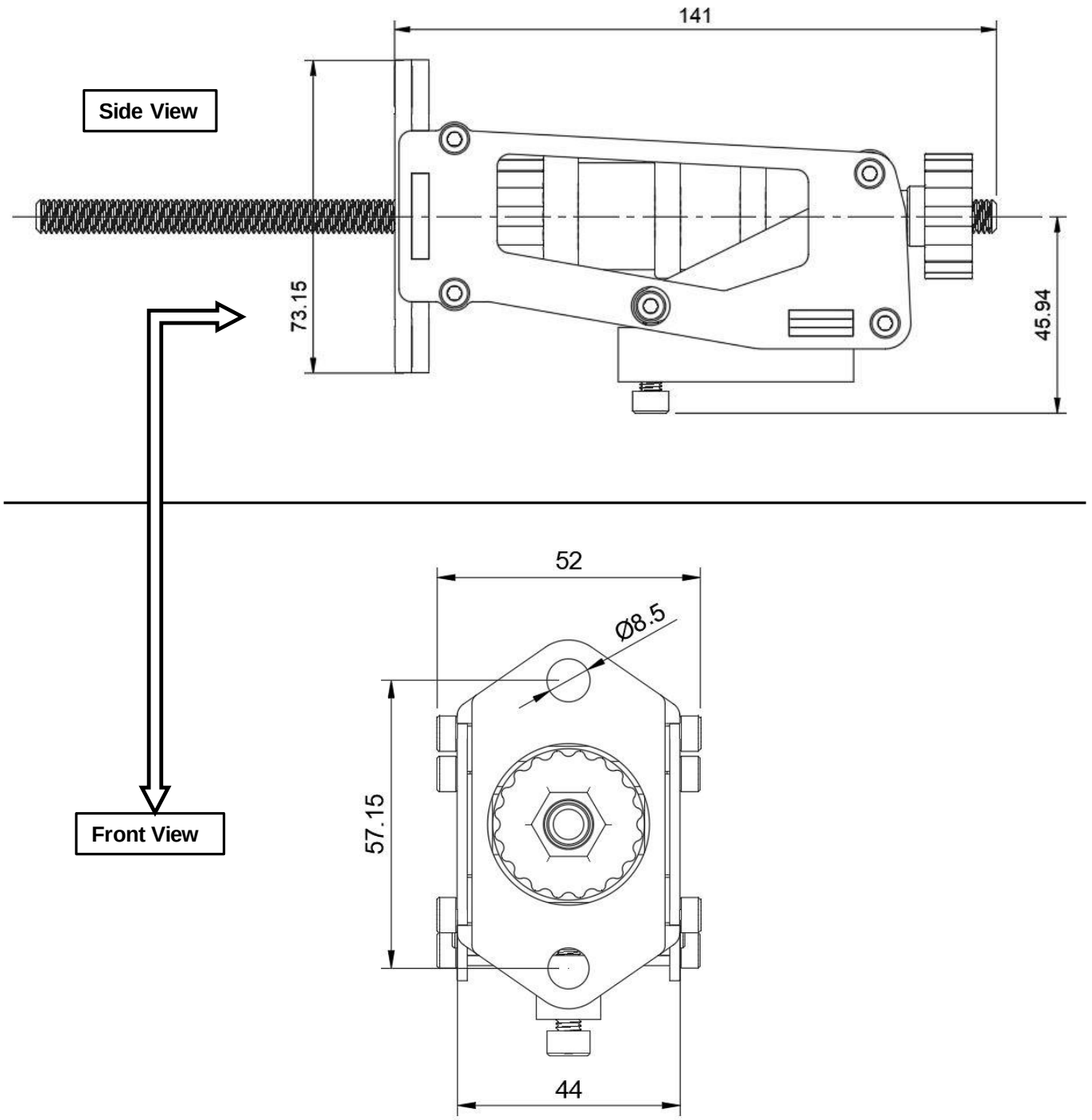
13 SimCylinder pedal angle adjustement

Pedal angle adjustement:
Uniformly set both adjustment screws clockwise or counter clockwise to alter the pedal angle of both brake and clutch pedal on your pedalbox.



SimCylinder - Dimensions

SimCylinder Dimensions



Dimesion Overview:

The above dimension overview helps you to clarify, if our SimCylinders will fit the pedalbox you plan to use for your build.

If you are not sure, please check information/installation drawings of the manufacturer of the pedalbox you plan to use or directly contact him.

Feel also free to contact us via mail (info@simprolouge.com) or via our official discord channel (https://discord.gg/RgwZYpX) if you have any questions.