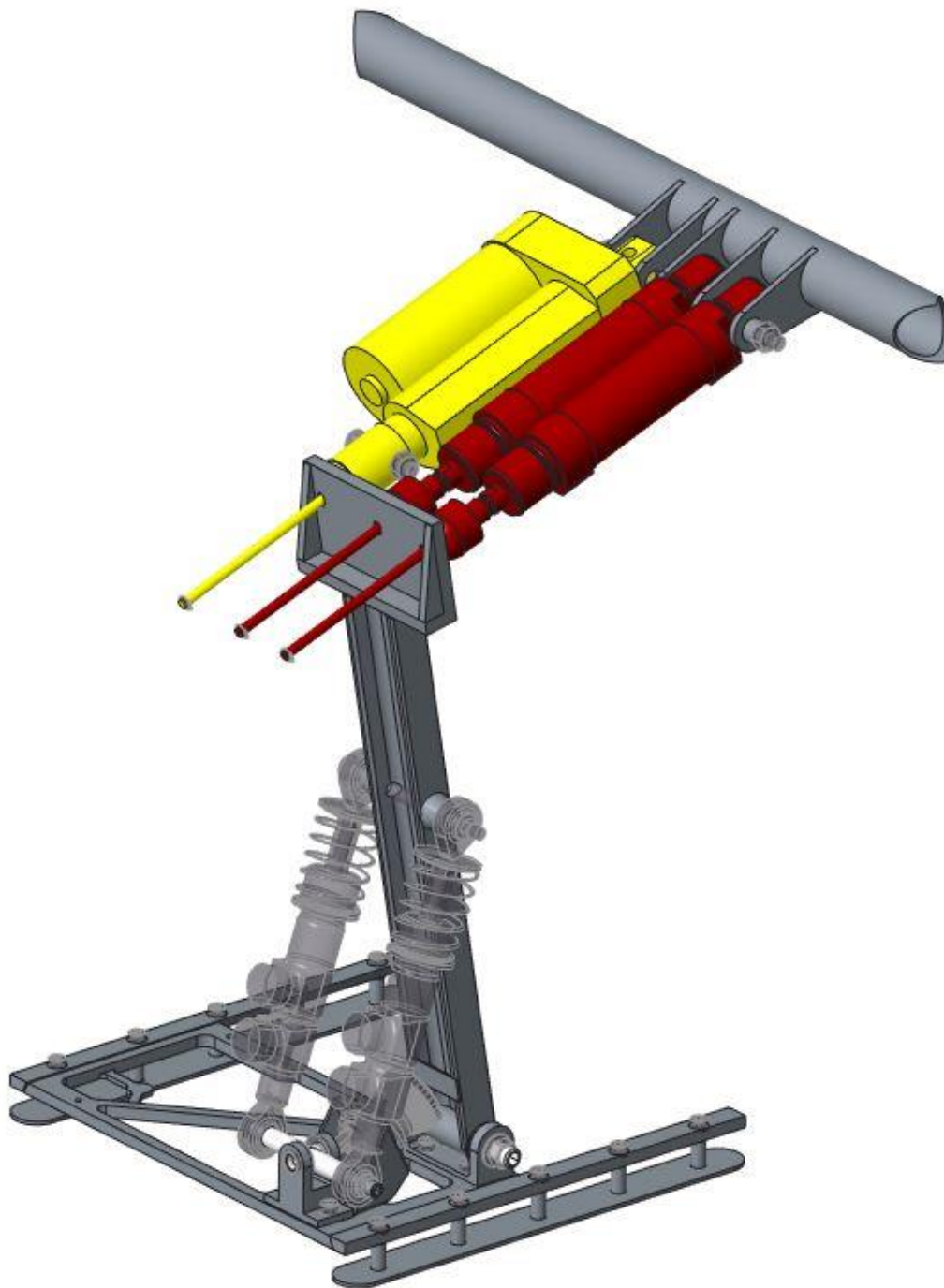
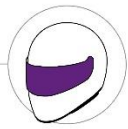




Mechanical parts

Abstract

This documents will give an overview about the mechanical assemblies and single parts which used for the EBS.



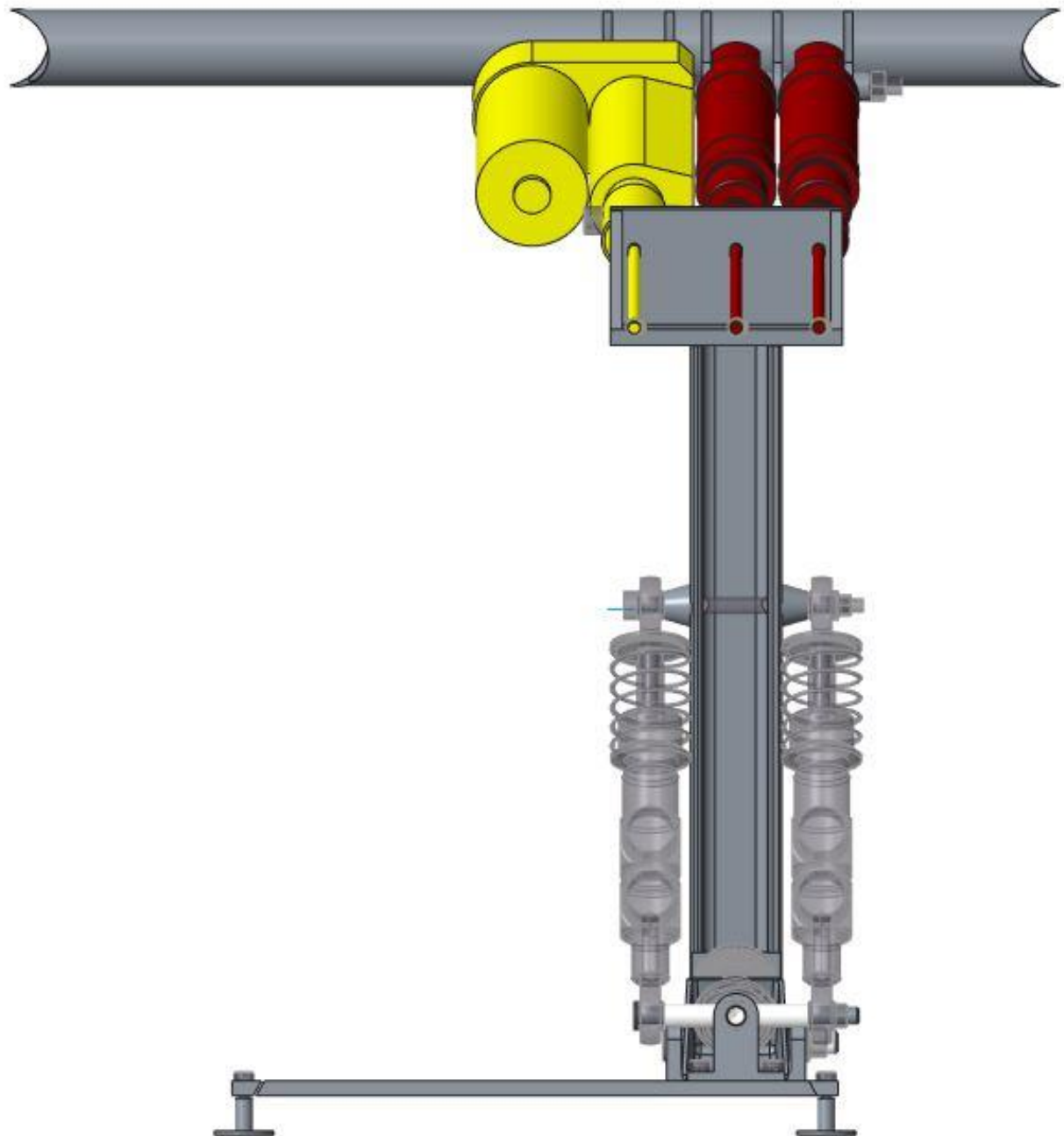
Brake assembly

Grey: self designed and/or self build parts

Grey tinted: GP1 & GP2: Master brake cylinders (Beringer MC127)

Red: MM1 & MM2: EBS actuators (Festo – ESNU-25-25-P)

Yellow: service brake parts



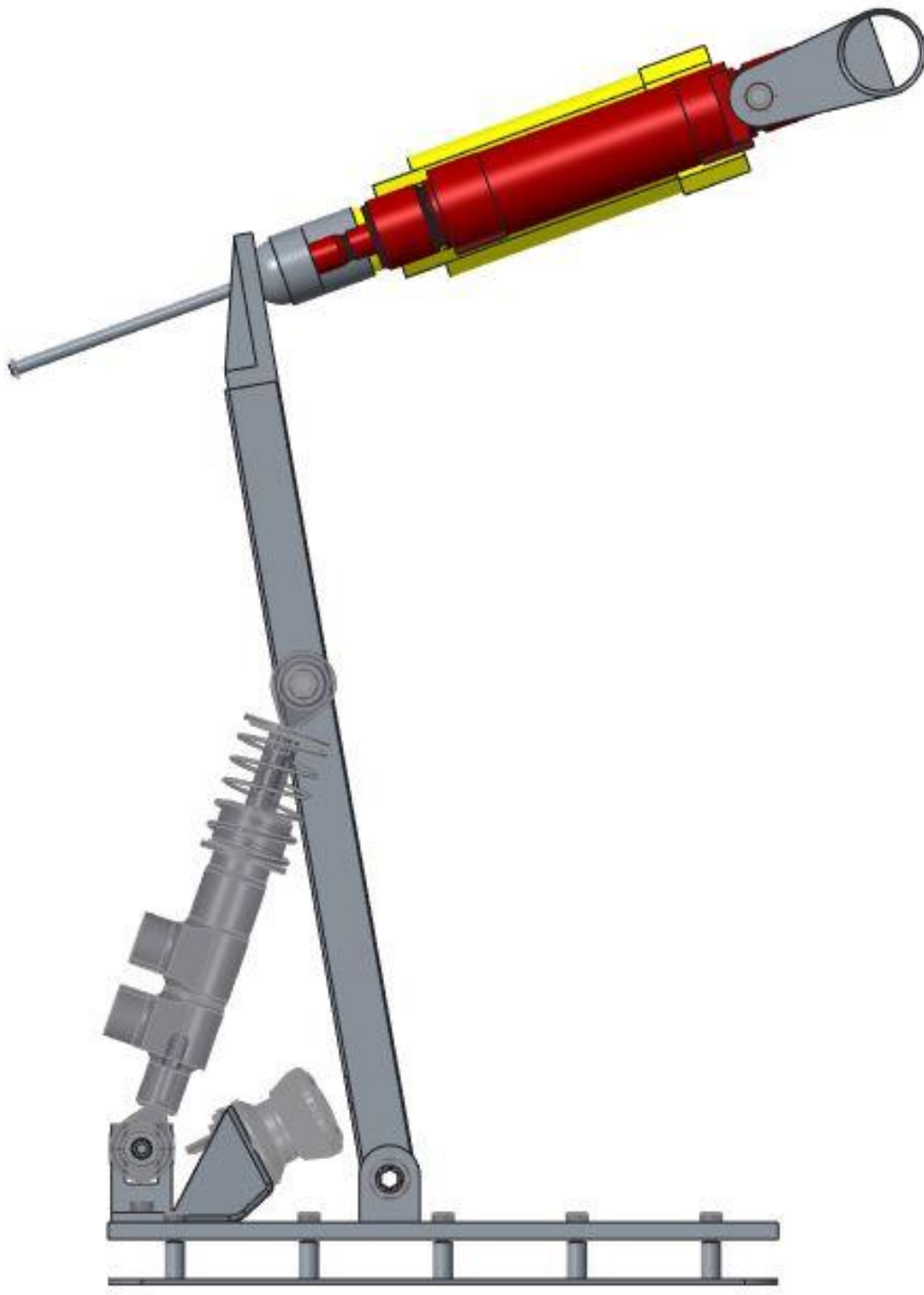
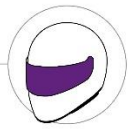
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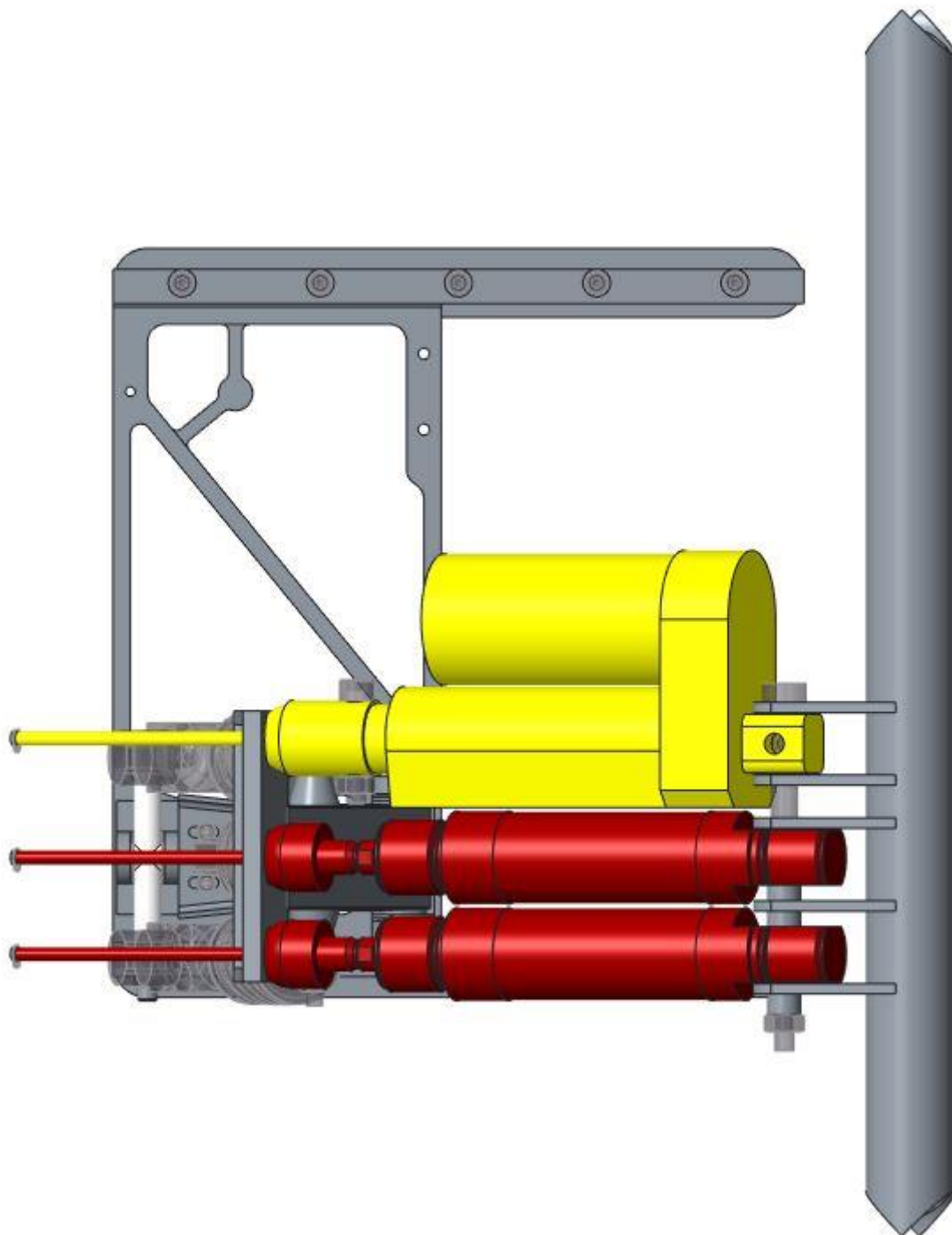
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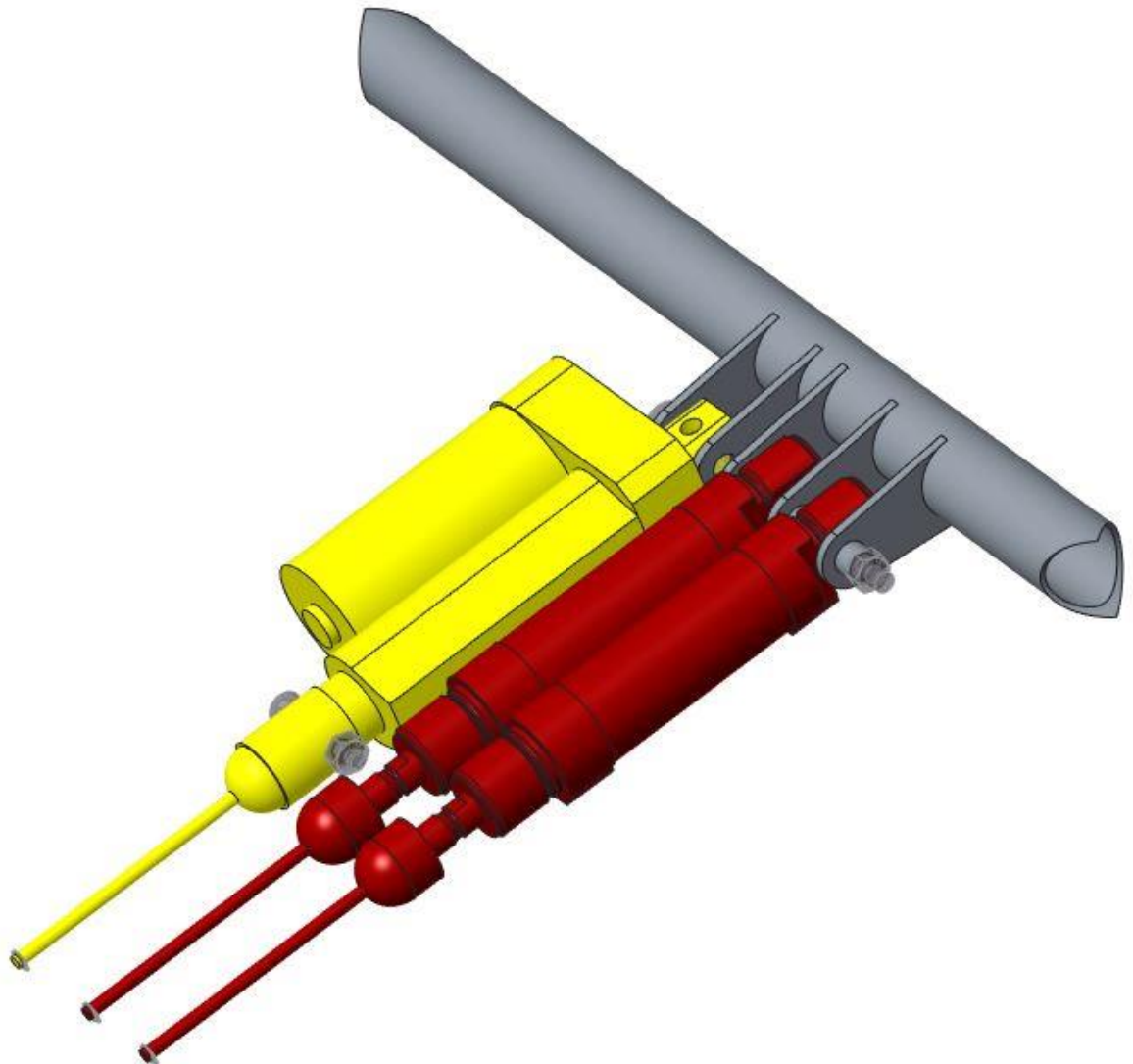
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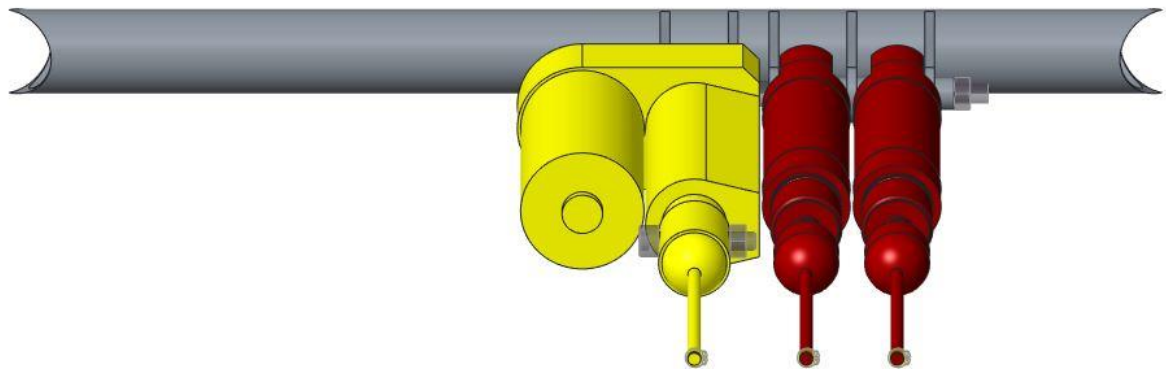
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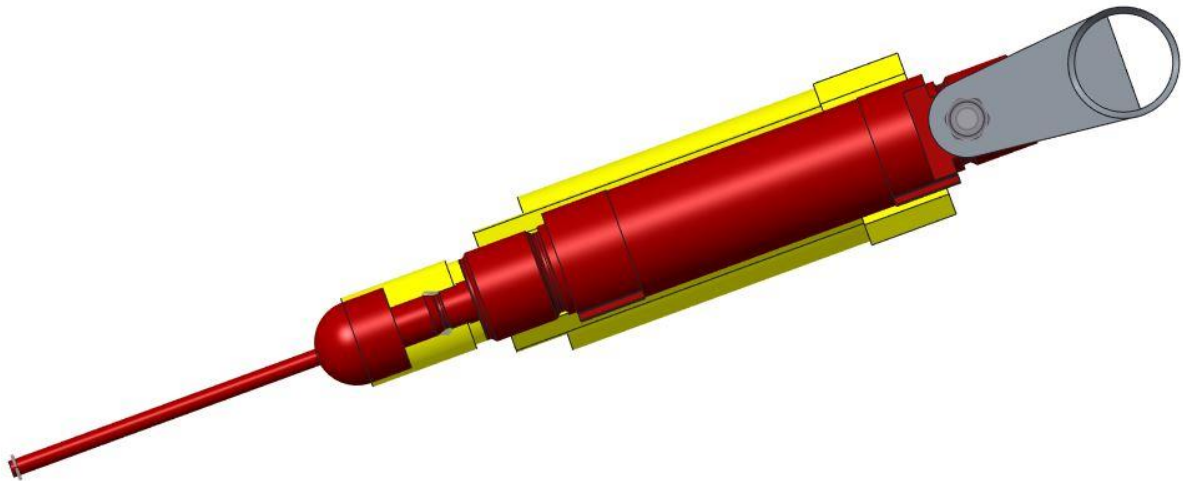
EBS/SB assembly

Grey: self designed and/or self build parts

Grey tinted: Bought parts

Red: MM1 & MM2: EBS actuators (Festo – ESNU-25-25-P)

Yellow: service brake parts



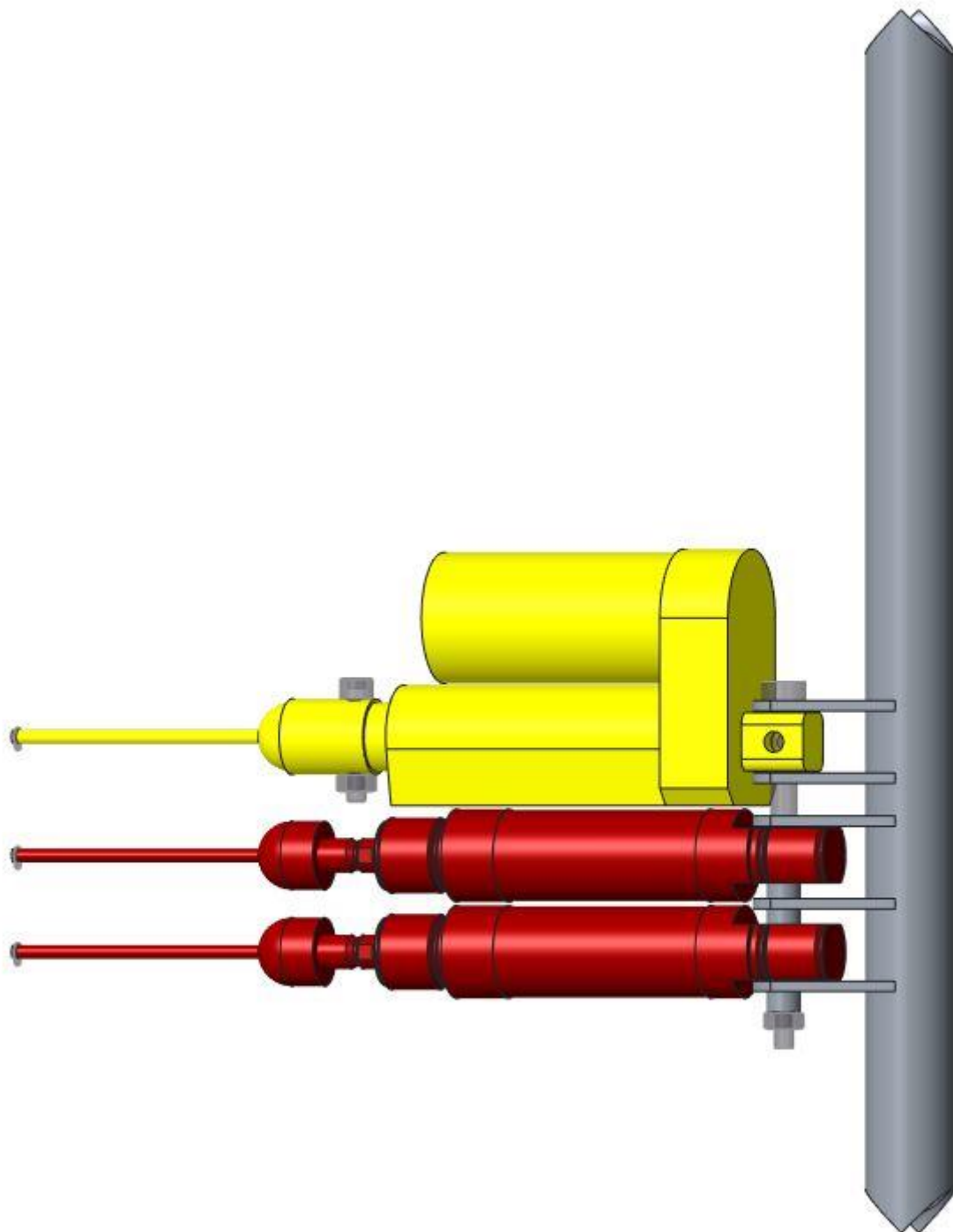
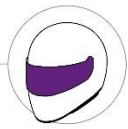
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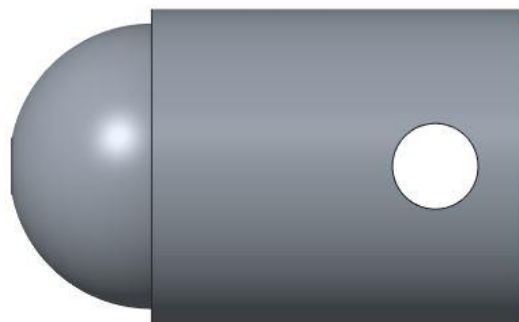
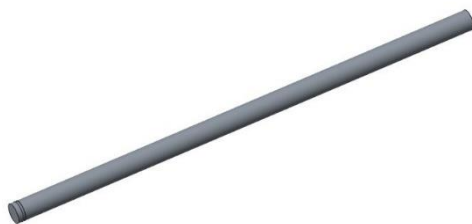
SB assembly

Grey tinted: Bought parts (M6 bolt & nut)

Yellow: tinted: Bought parts (linear motor)

Grey: positive sphere with hole for guide rod (aluminum, connected to linear motor rod with bolt and nut6)

White: guide rod (steel, diameter: 4mm, interference fit to positive sphere)



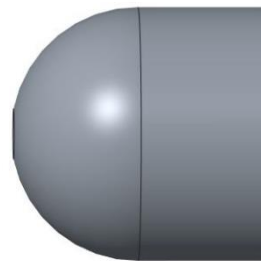


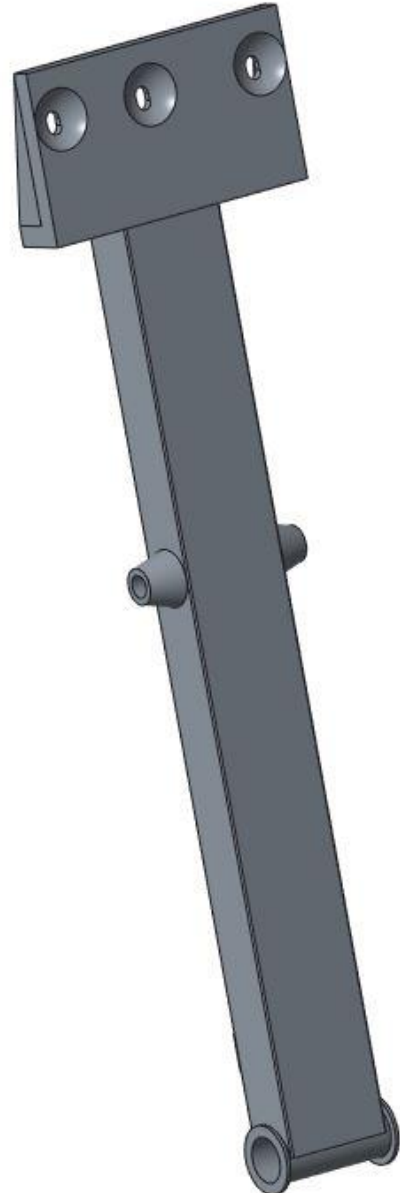
EBS actuator assembly

red tinted: MM1 & MM2: EBS actuators (Festo ESNU 25-25-P)

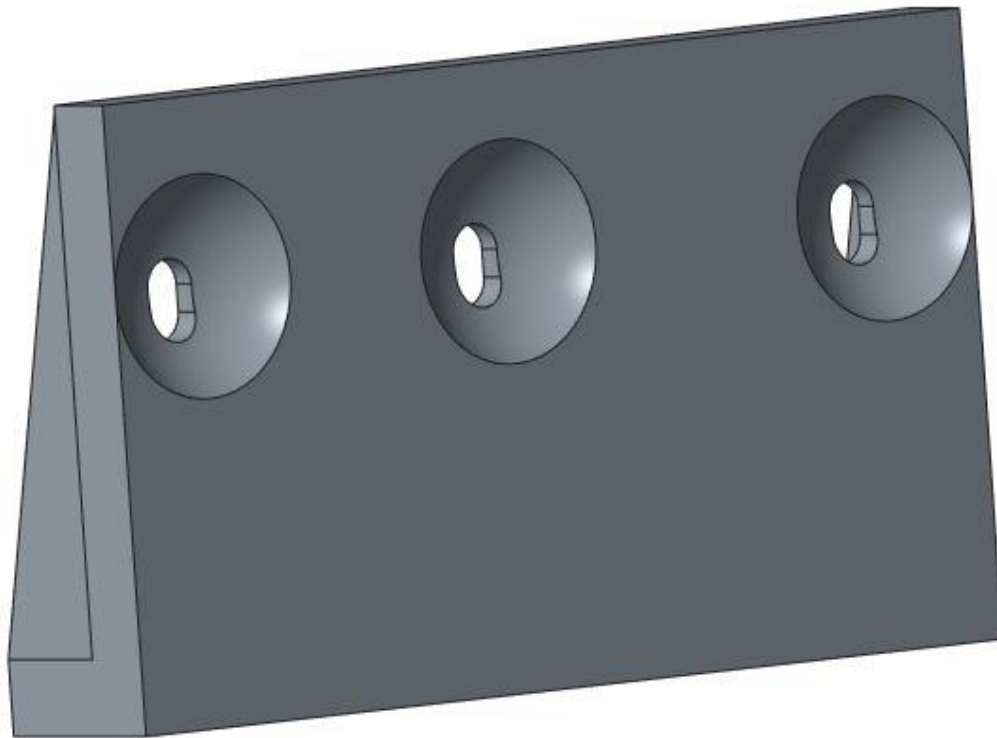
Grey: positive sphere with hole for guide rod (aluminum, connected to pneumatic via M10 thread and counter nut)

White: guide rod (steel, diameter: 4mm, interference fit to positive sphere)





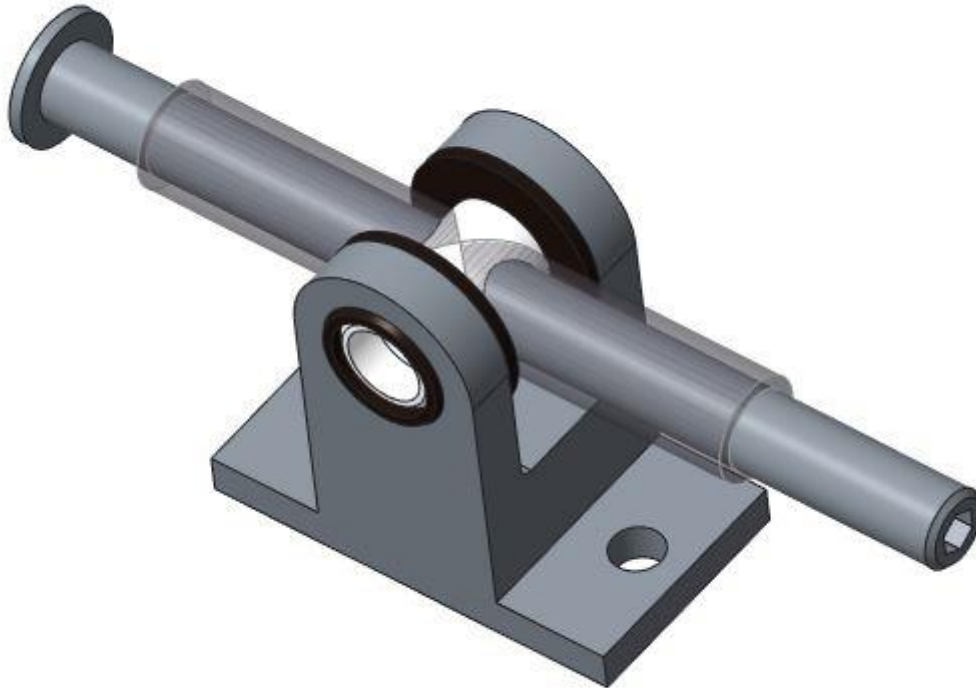
Brake pedal assembly
All parts made of steel and welded together



Detailed view SB/EBS counterpart

Made of steel and welded to lower part of the brake pedal

Negative sphere which connects with positive sphere if SB/EBS activated, non-circular hole for guide rod to ensure correct positioning



Detailed view: brake balance bar

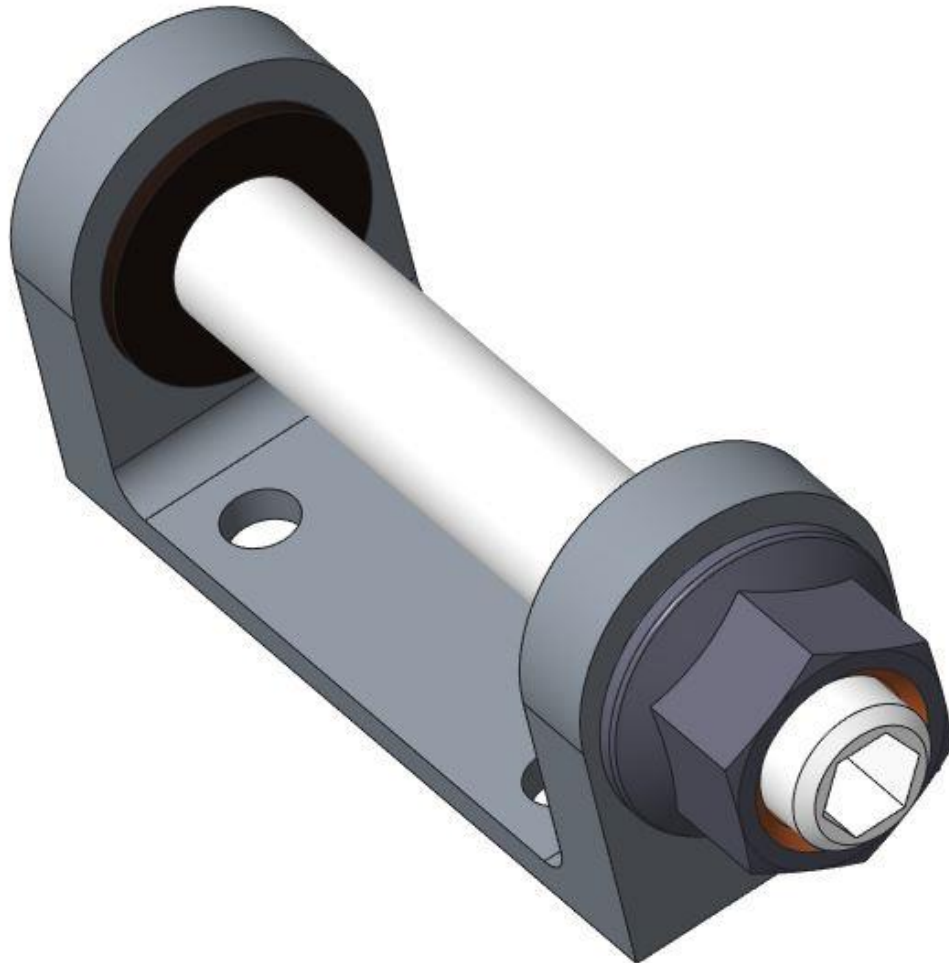
Mounting made of aluminum (t-shaped part)

Dark Brown: plastic bushings (IGUS Iglidur)

Grey: brake balance beam (made of titanium, diameter: 6mm)

Grey tinted: brake cylinder rod end spacer (made of aluminum)

White: brake balance bolt (made of aluminum)

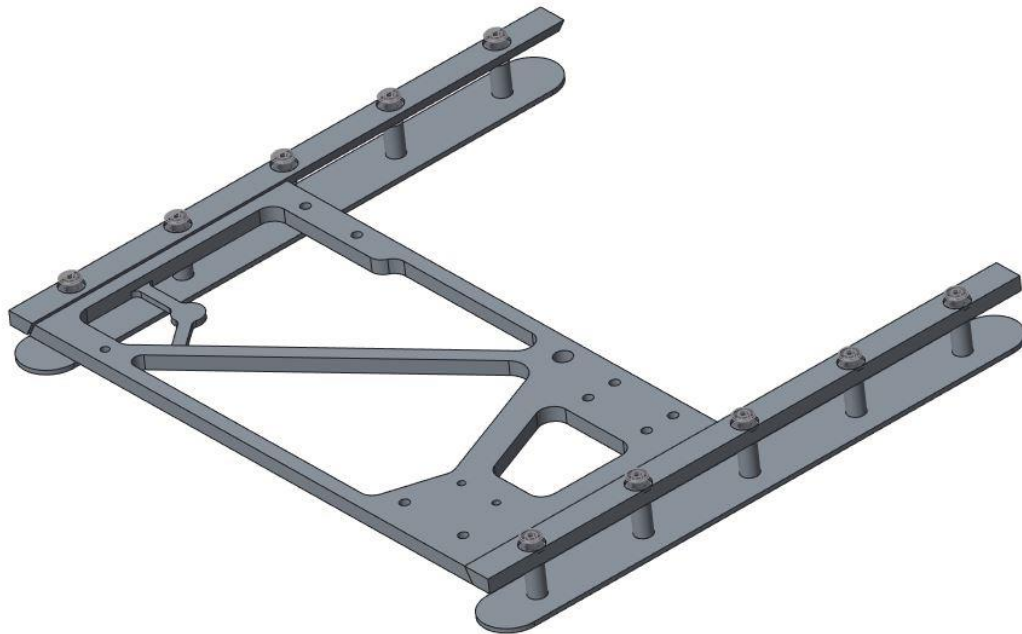


Detailed view: pedalmount

White: pedal bolt (made of titanium, diameter: 8mm)

Dark brown: plastic bushings (IGUS Iglidur)

U-shaped mounting made of aluminum



Detailed view: mounting plate

Dovetail shaped guides left and right

All made of aluminum