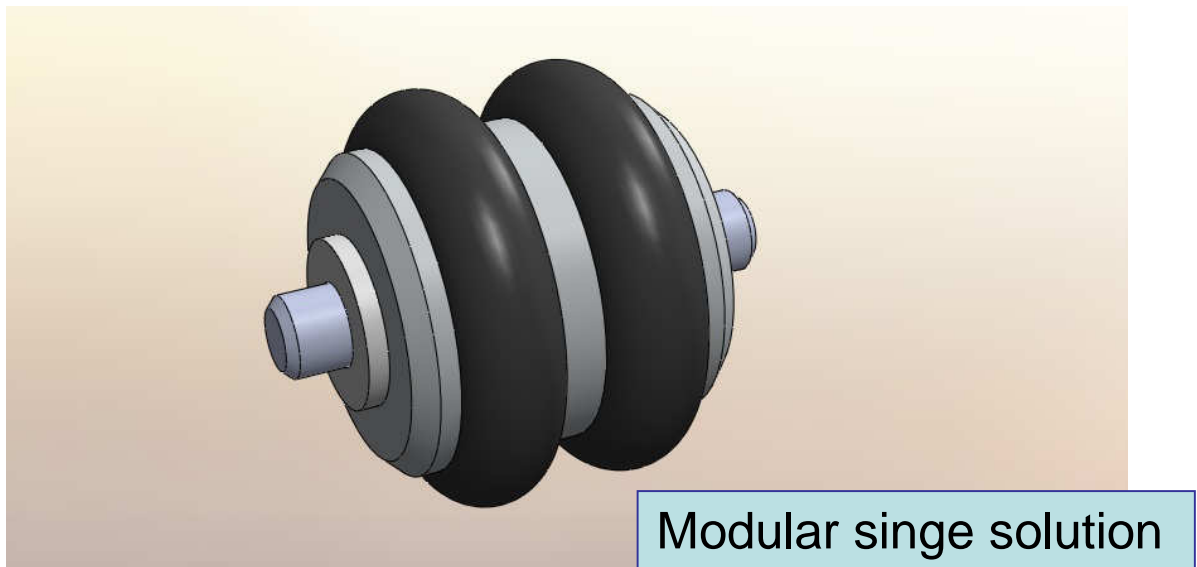
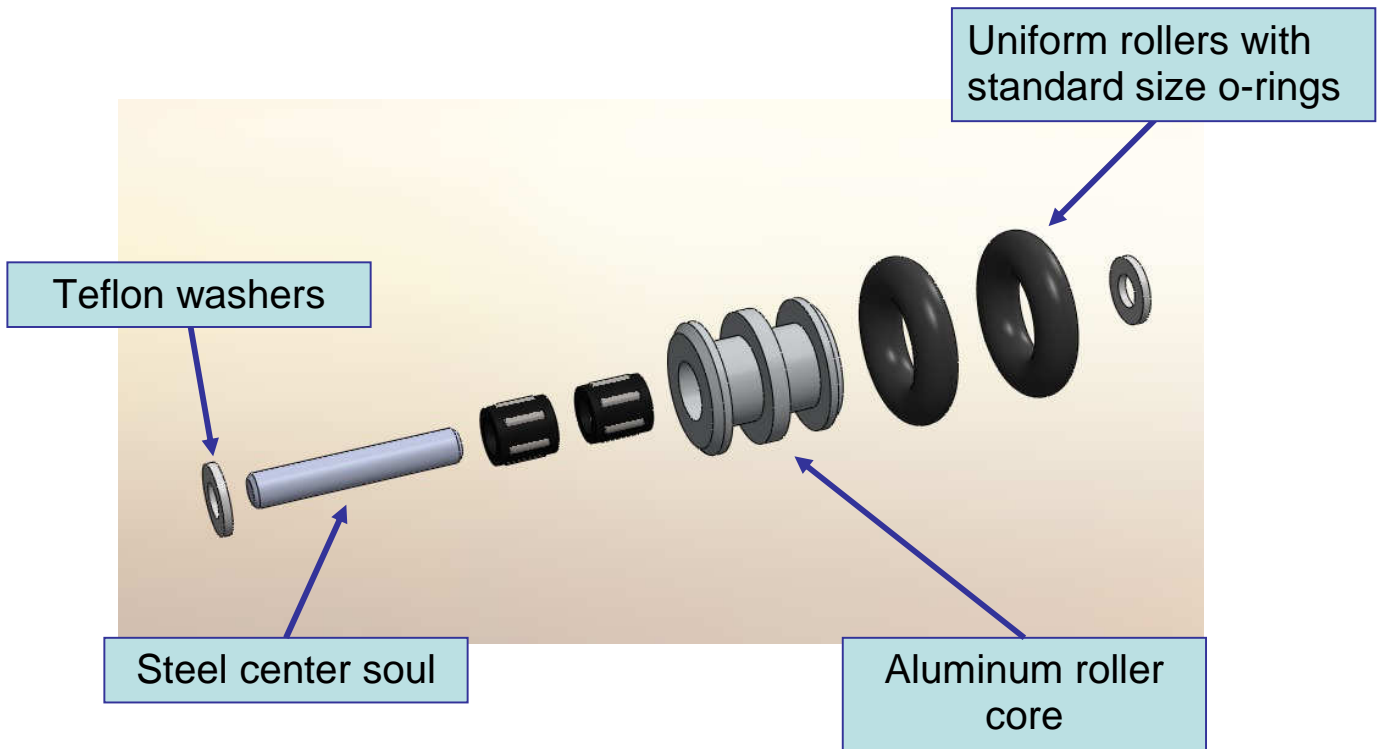
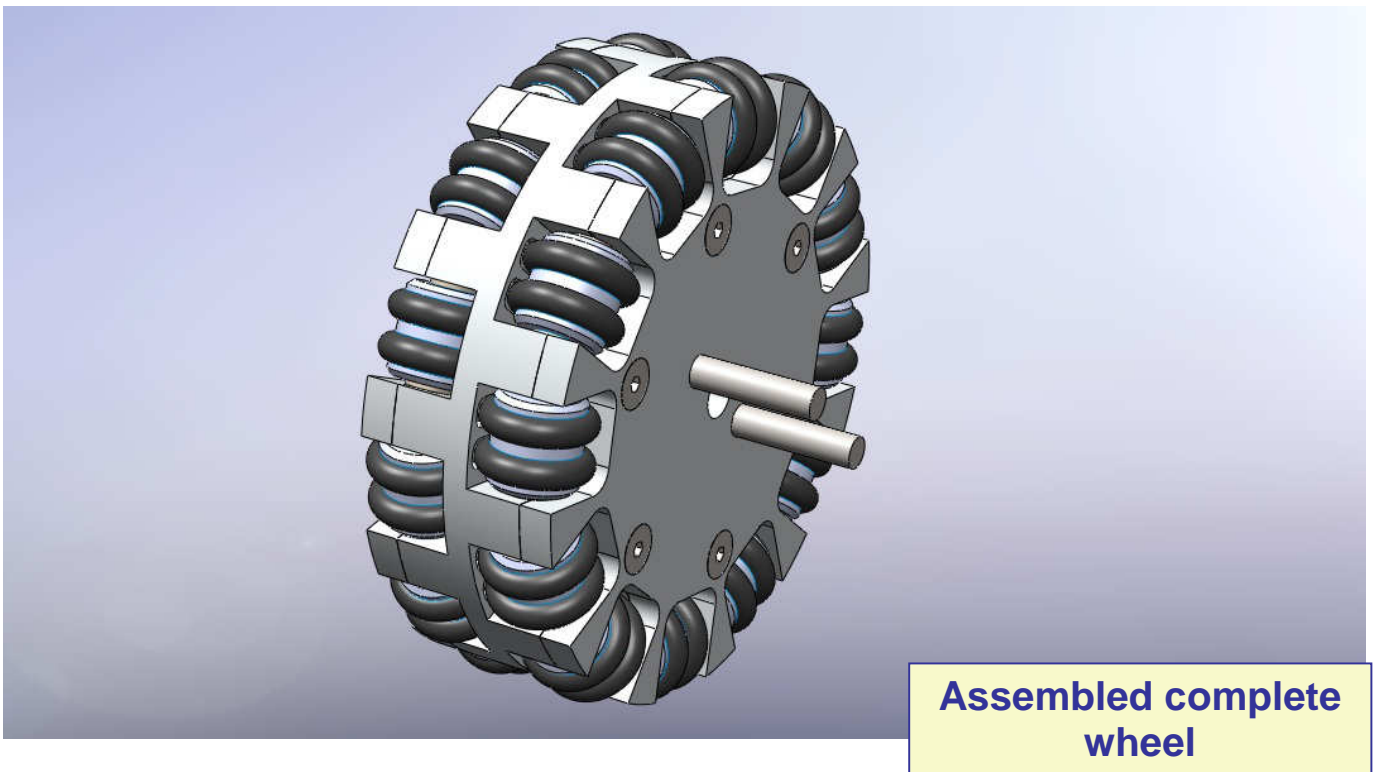
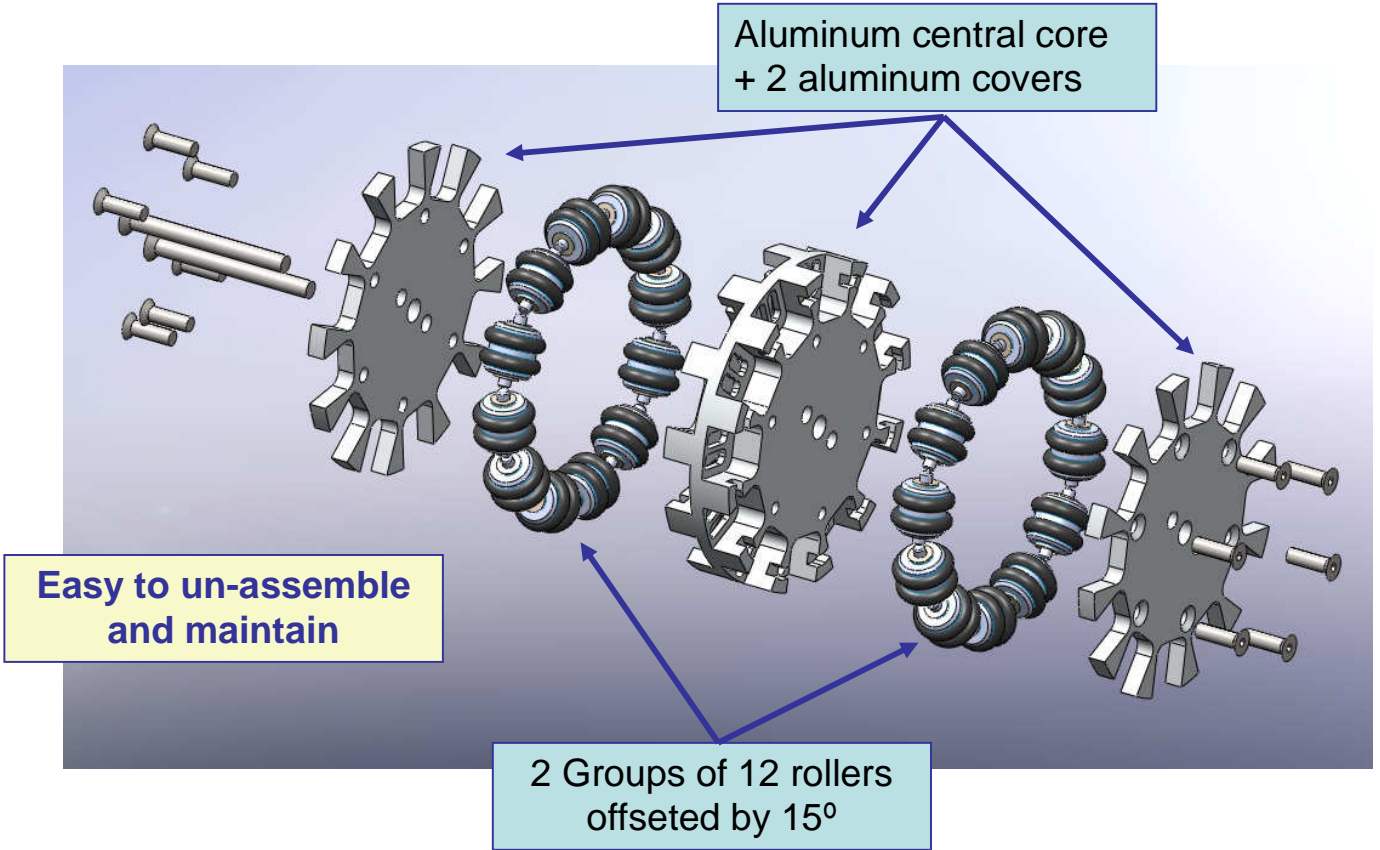
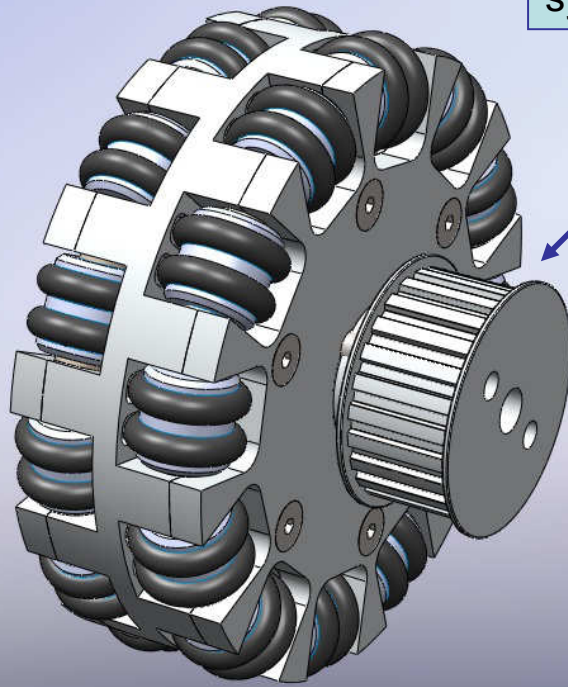


# CAMBADA 2013 new Platform Hardware Design

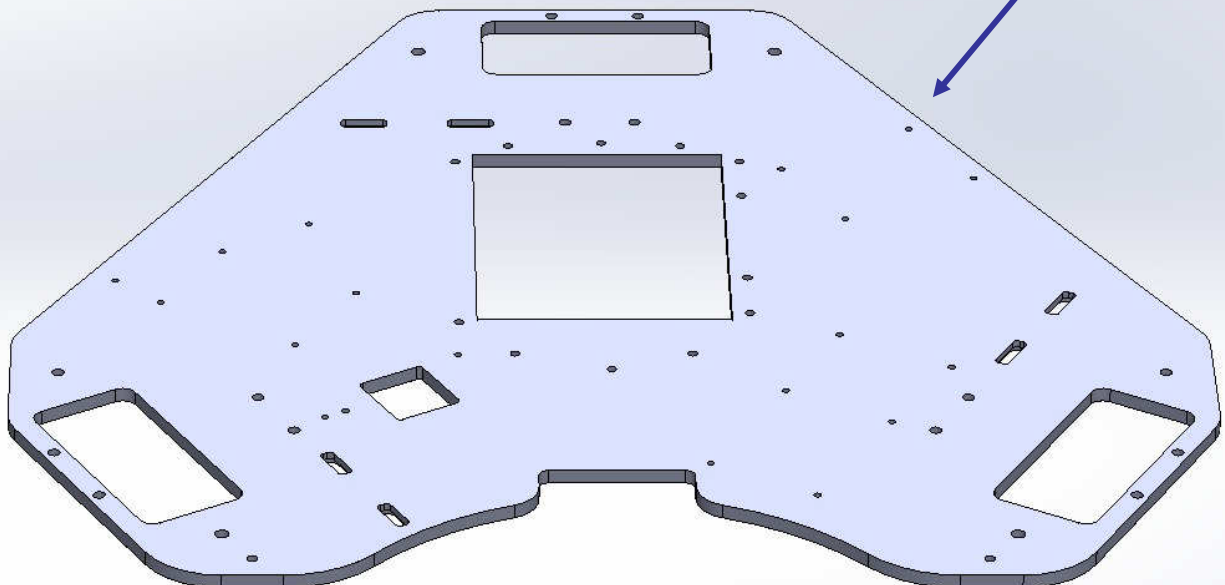




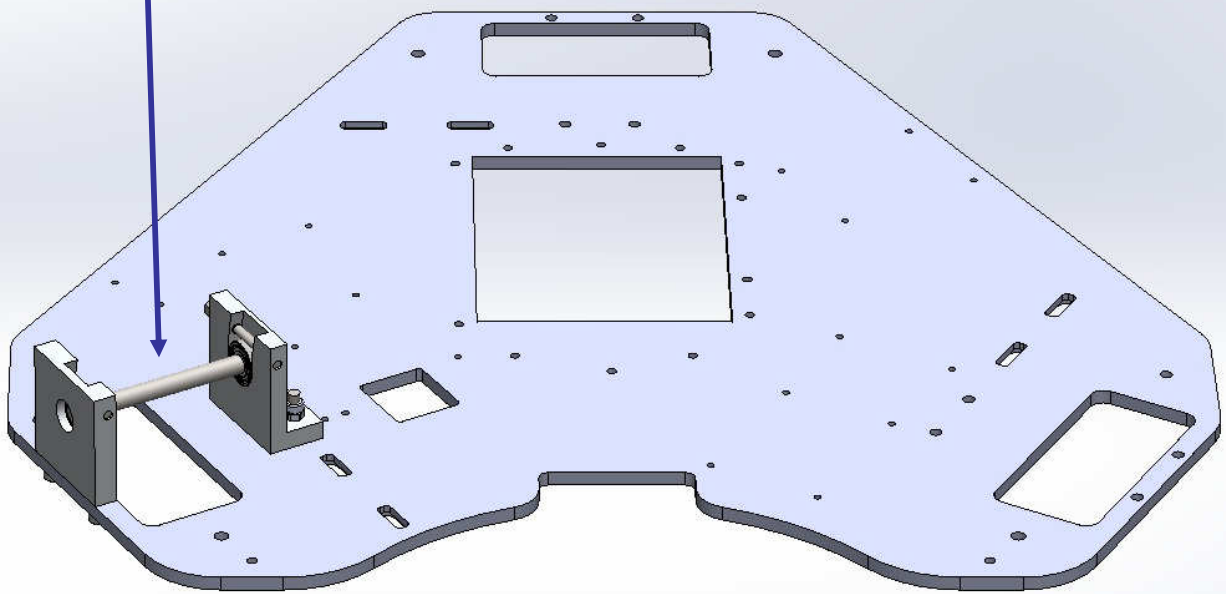
Transmission through synchronous pulley



6mm hard aluminum bottom sandwich structure

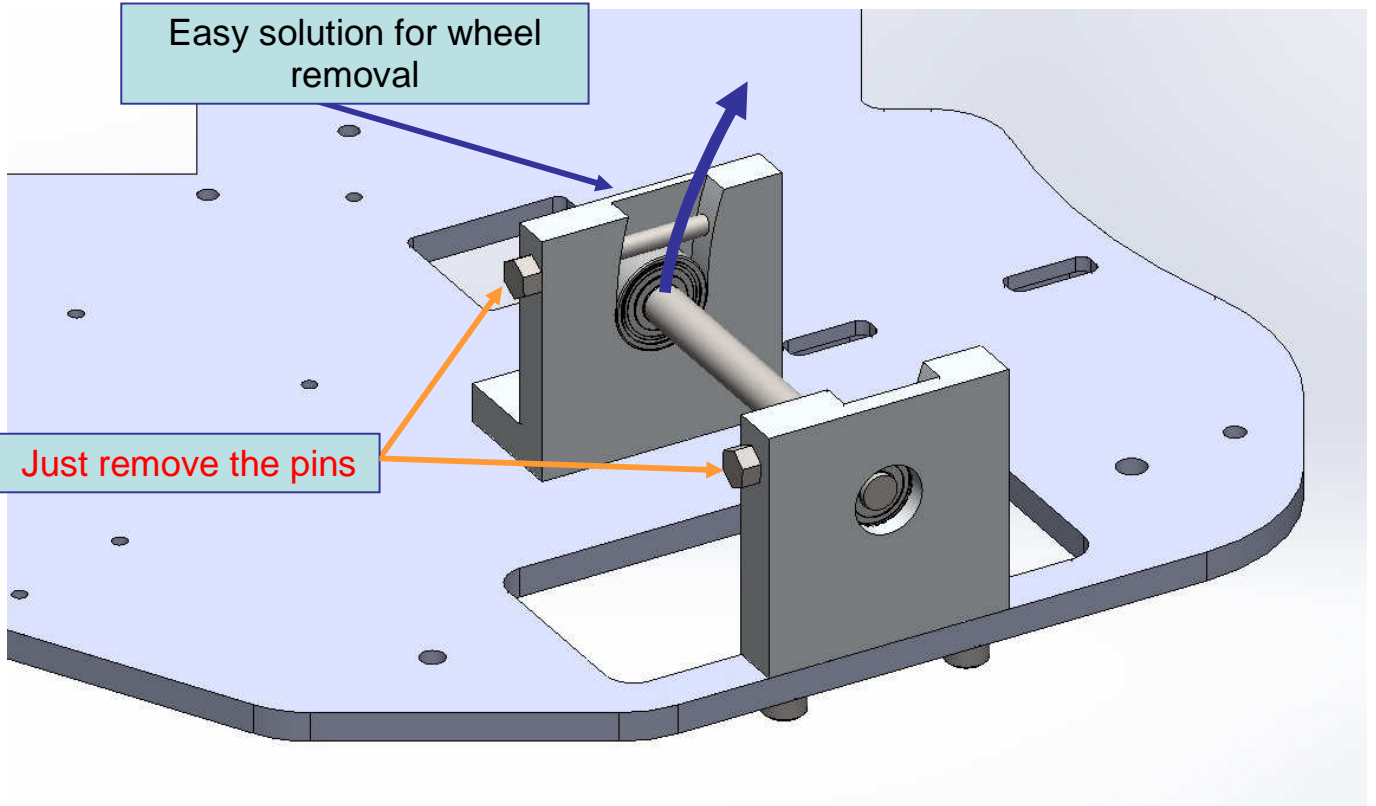


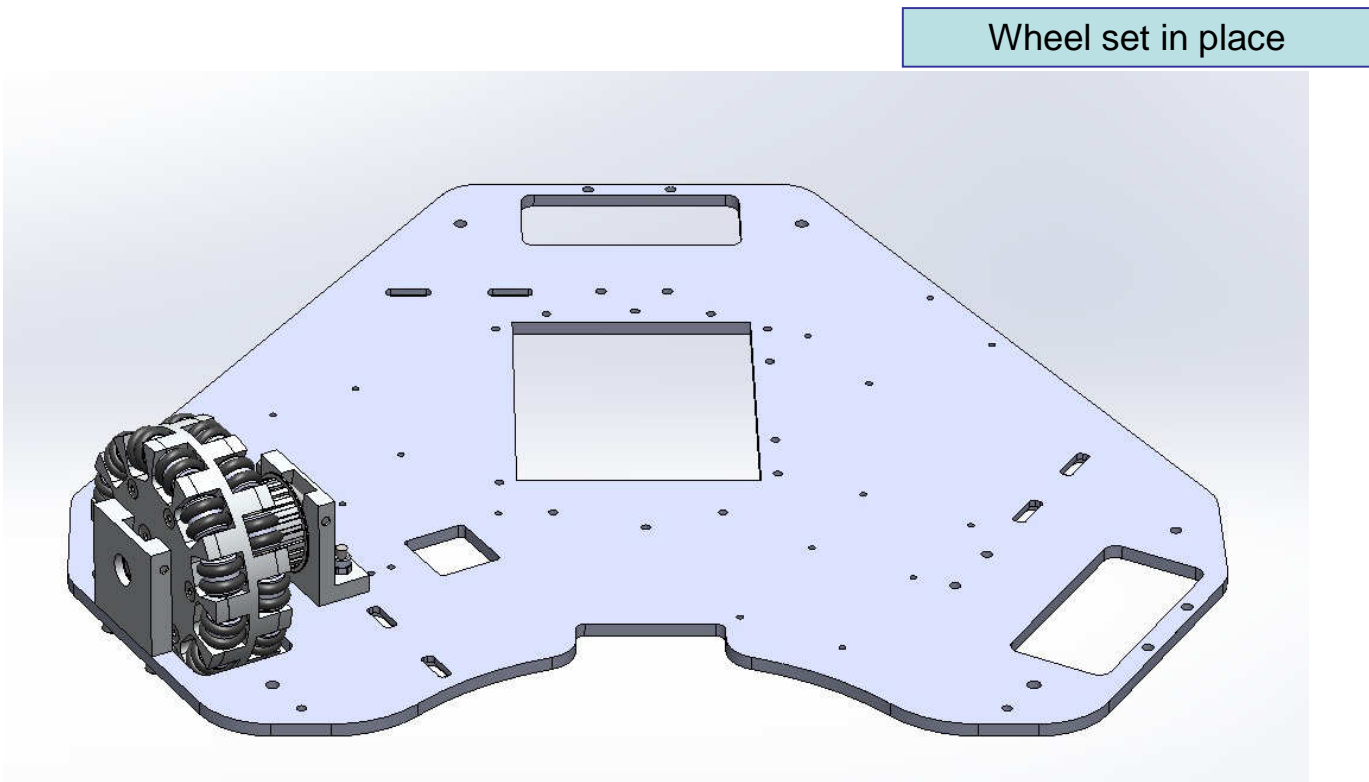
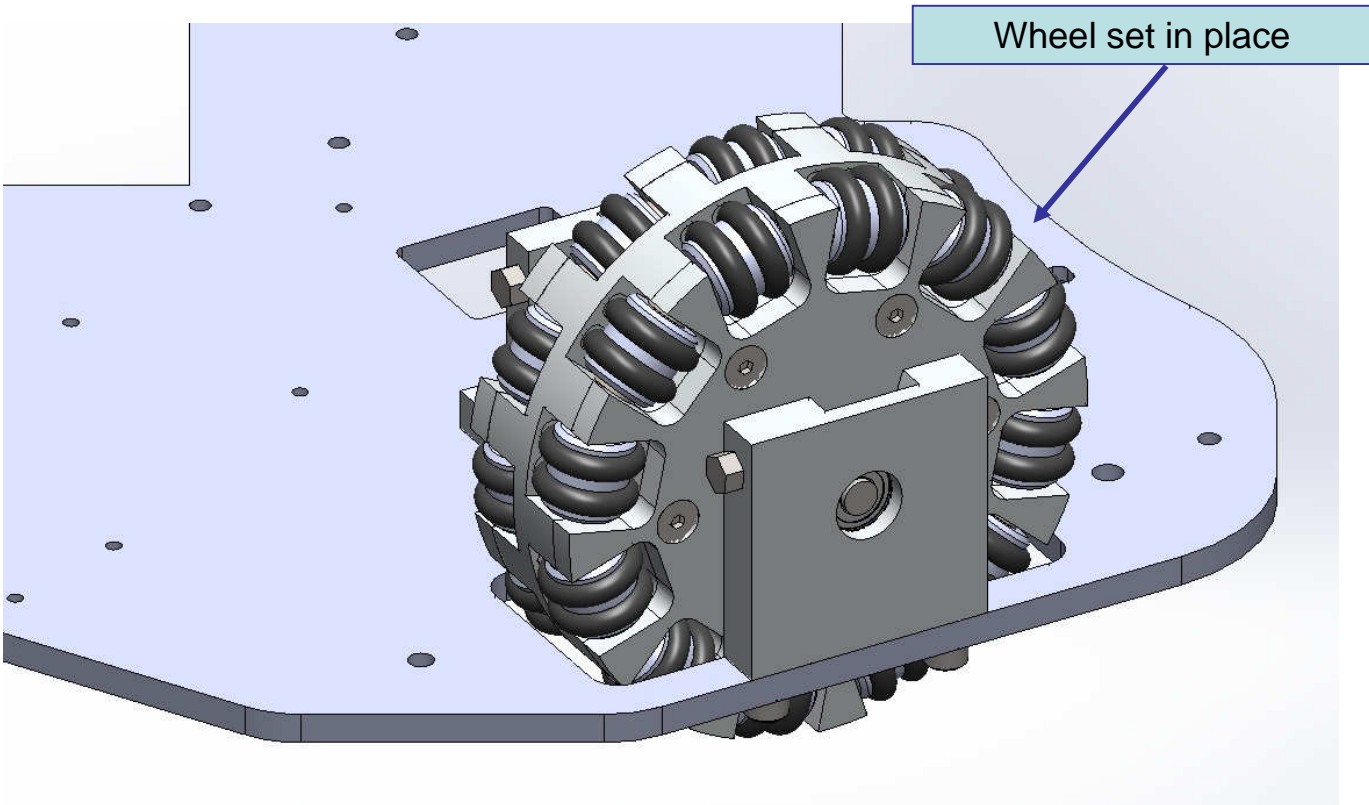
Wheel support



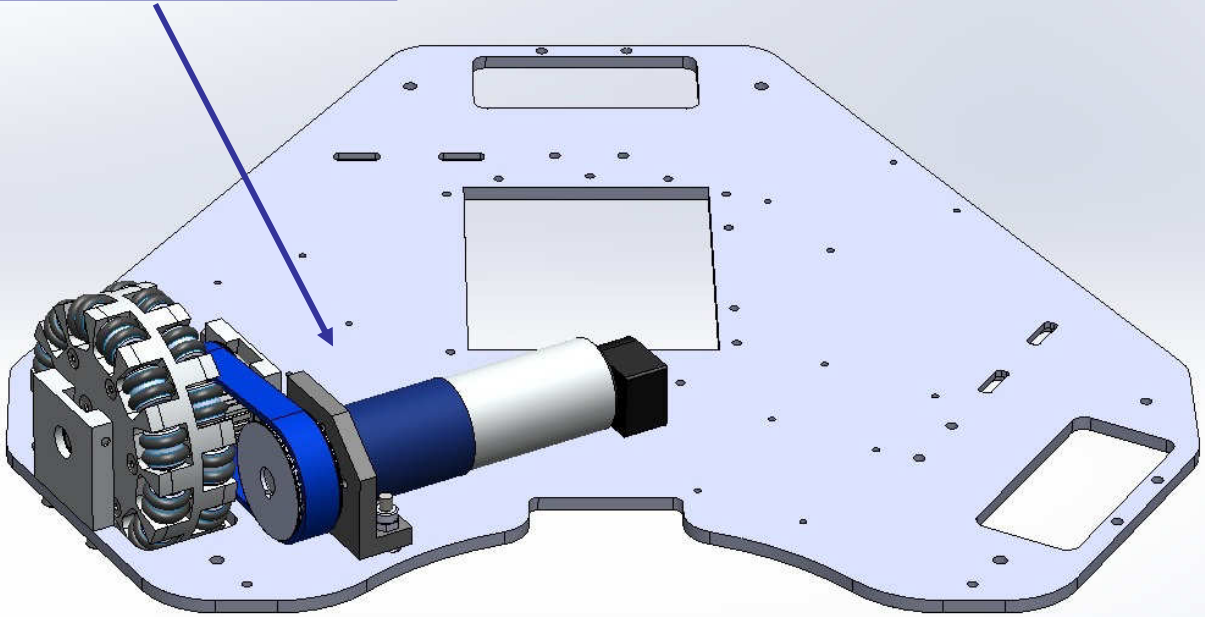
Easy solution for wheel removal

Just remove the pins

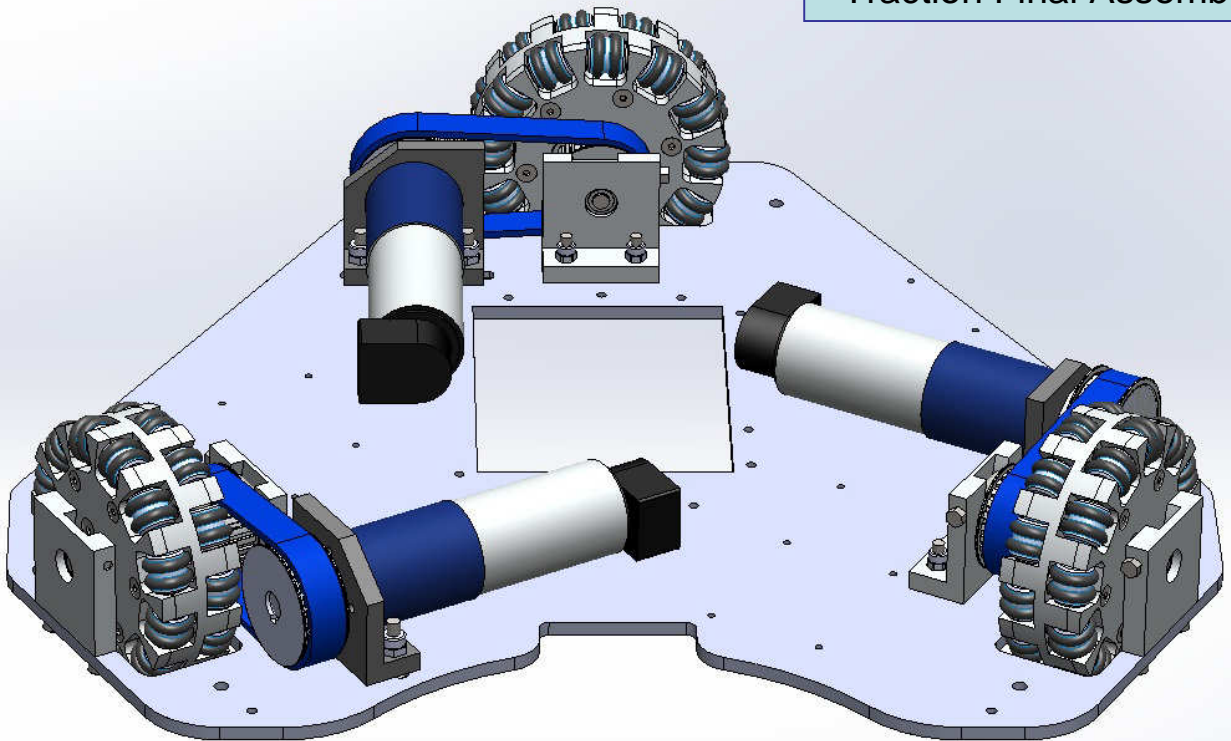


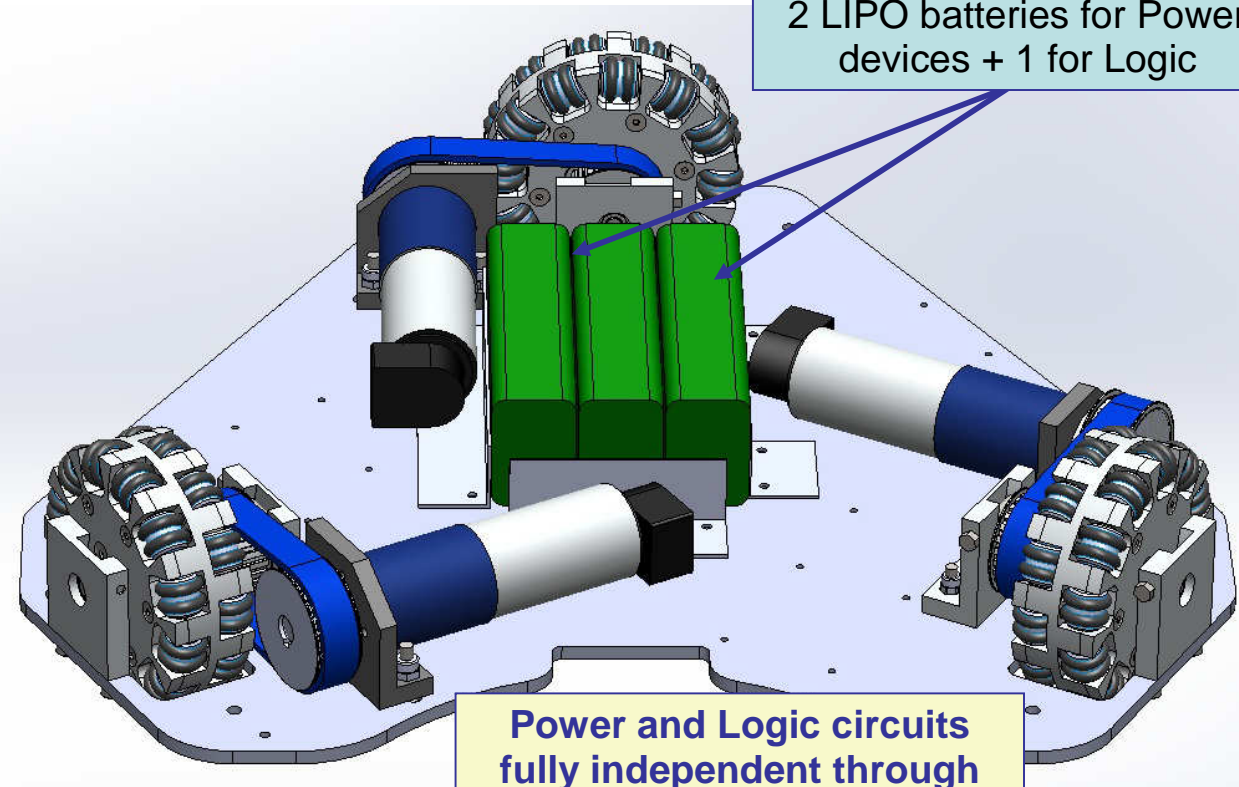


Traction setup with adjustable ratio factor



Traction Final Assembly



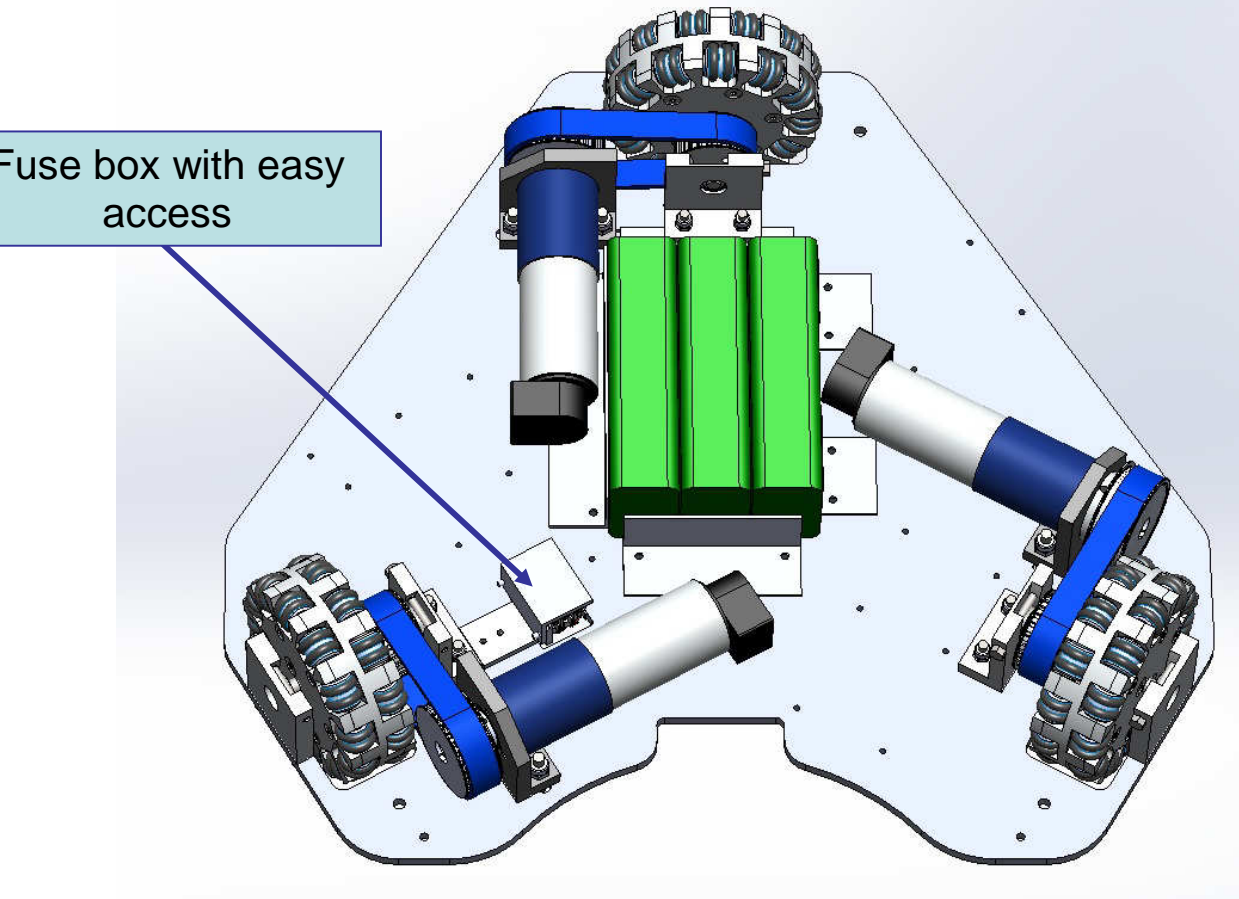


2 LIPO batteries for Power devices + 1 for Logic

The diagram shows a top-down view of a robot chassis. In the center, there are three green cylindrical battery packs. Two are larger and labeled as being for power devices, while one is smaller and for logic. The batteries are connected to two motor assemblies on the left and right sides of the chassis. Each motor assembly consists of a motor, a gear, and a drive shaft. The chassis is a light blue color with several mounting holes. A blue callout box with a white border and a blue arrow points to the battery packs.

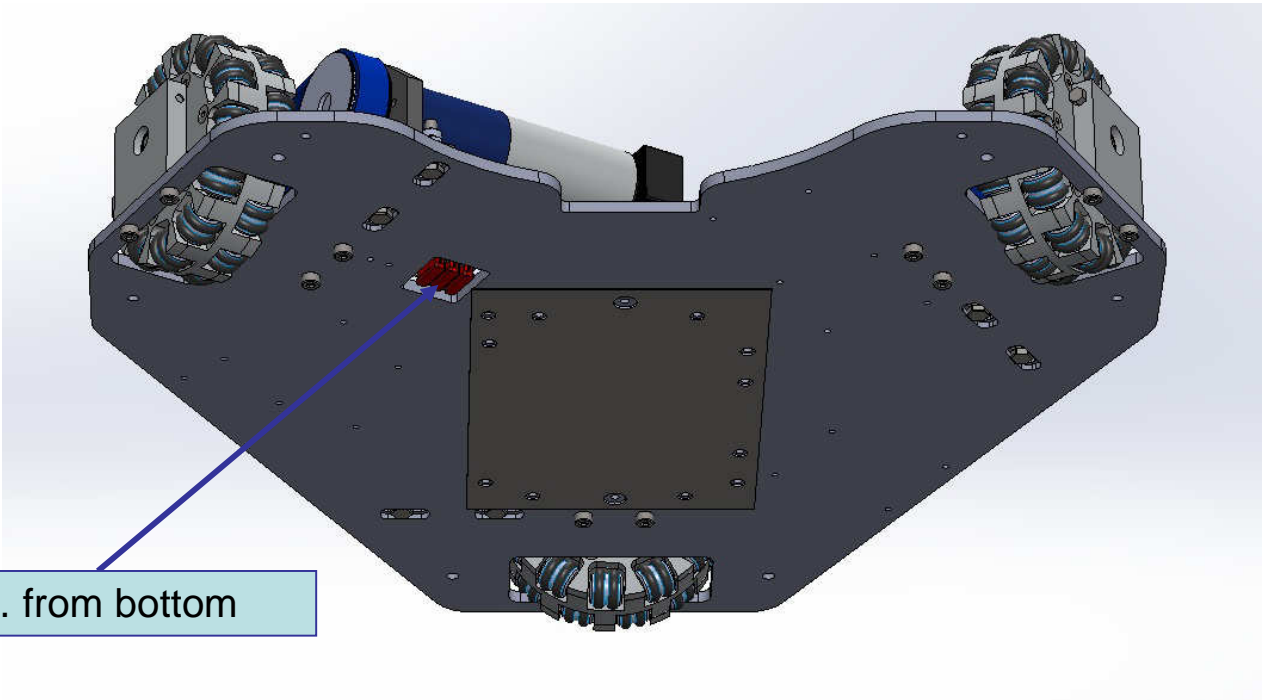
Power and Logic circuits fully independent through optical couplers

This text is located in a yellow callout box with a blue border and a blue arrow pointing to the battery packs. It indicates that the power and logic circuits are fully independent through optical couplers.

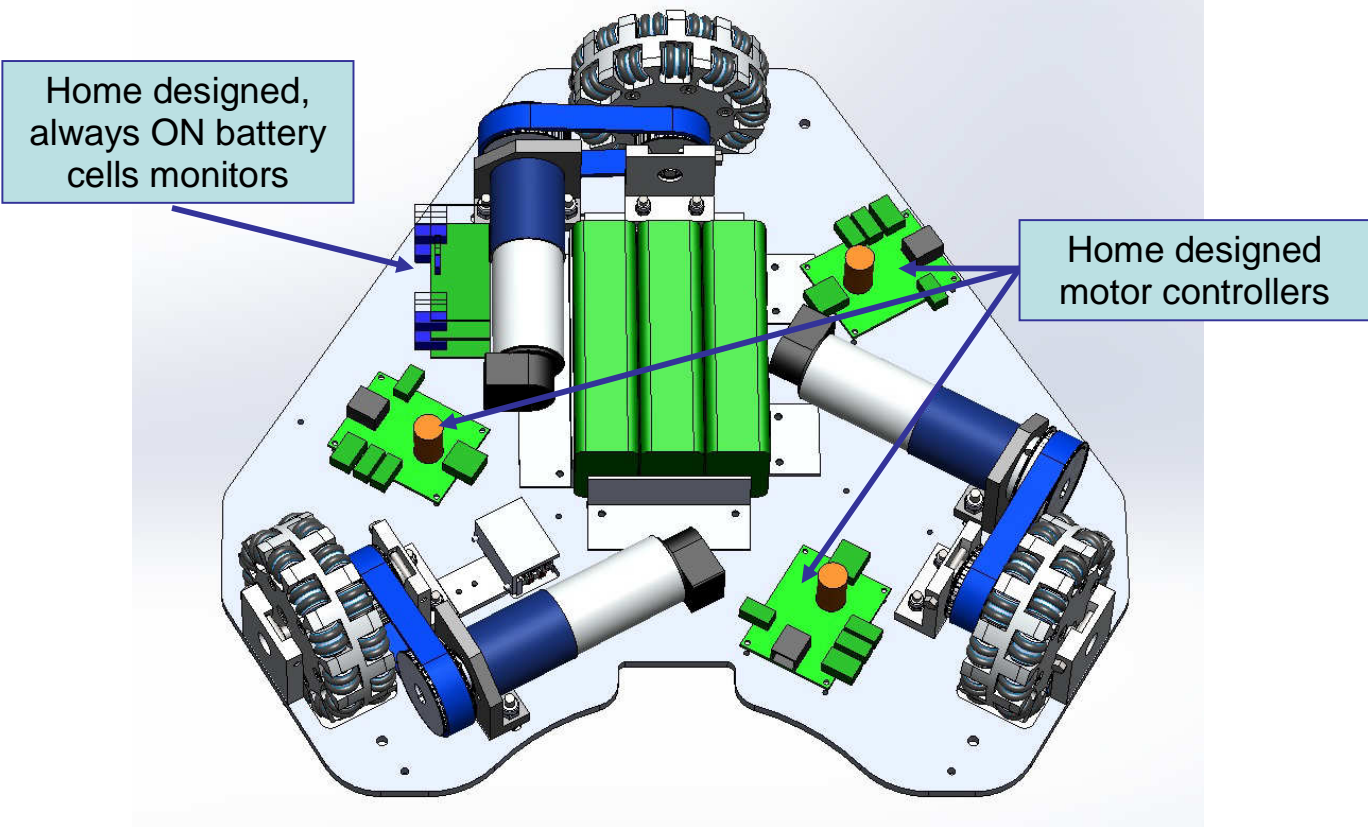


Fuse box with easy access

The diagram shows a top-down view of the same robot chassis. A small white rectangular component, identified as a fuse box, is mounted on the chassis. A blue callout box with a white border and a blue arrow points to the fuse box. The rest of the chassis, including the battery packs and motor assemblies, is visible in the background.



... from bottom

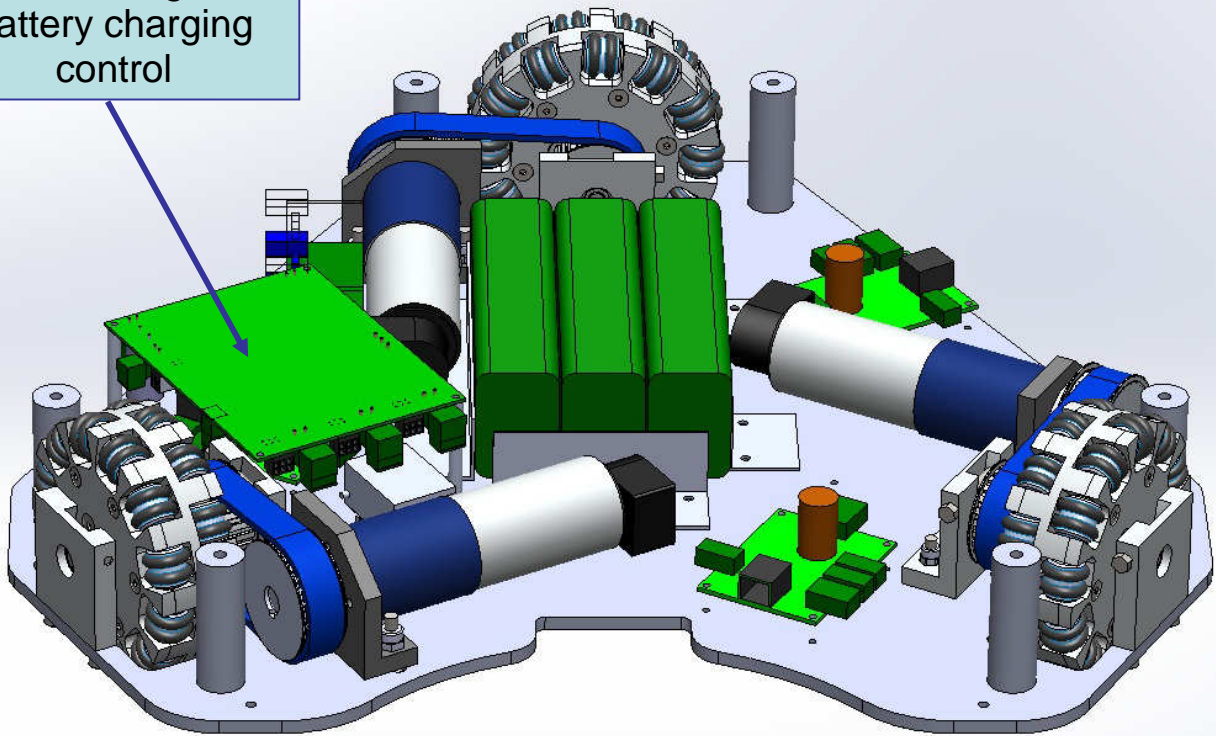


Home designed,  
always ON battery  
cells monitors

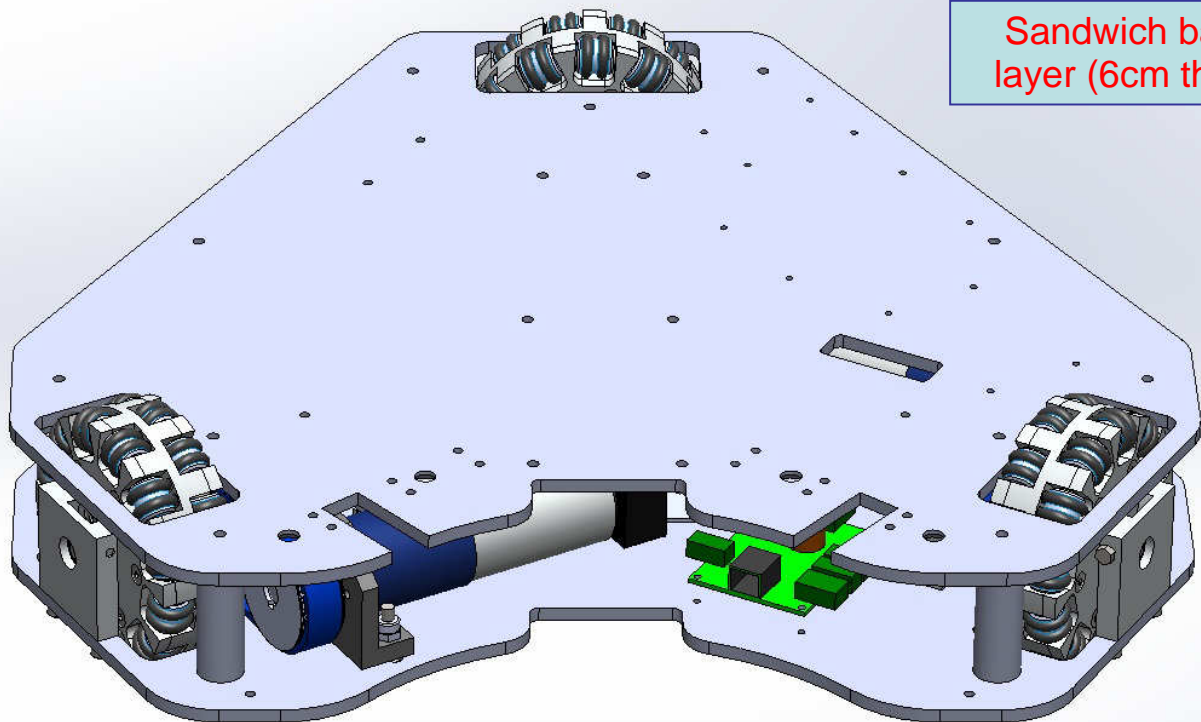
Home designed  
motor controllers

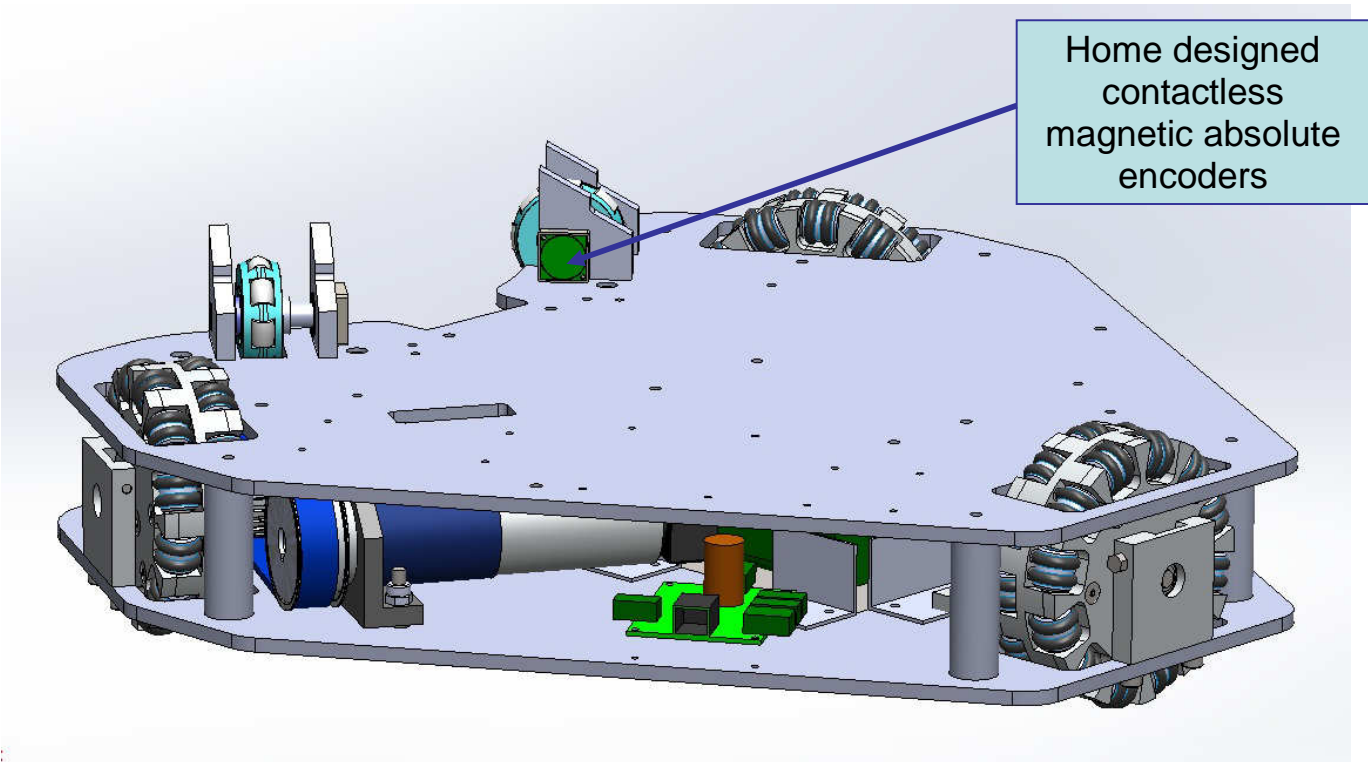
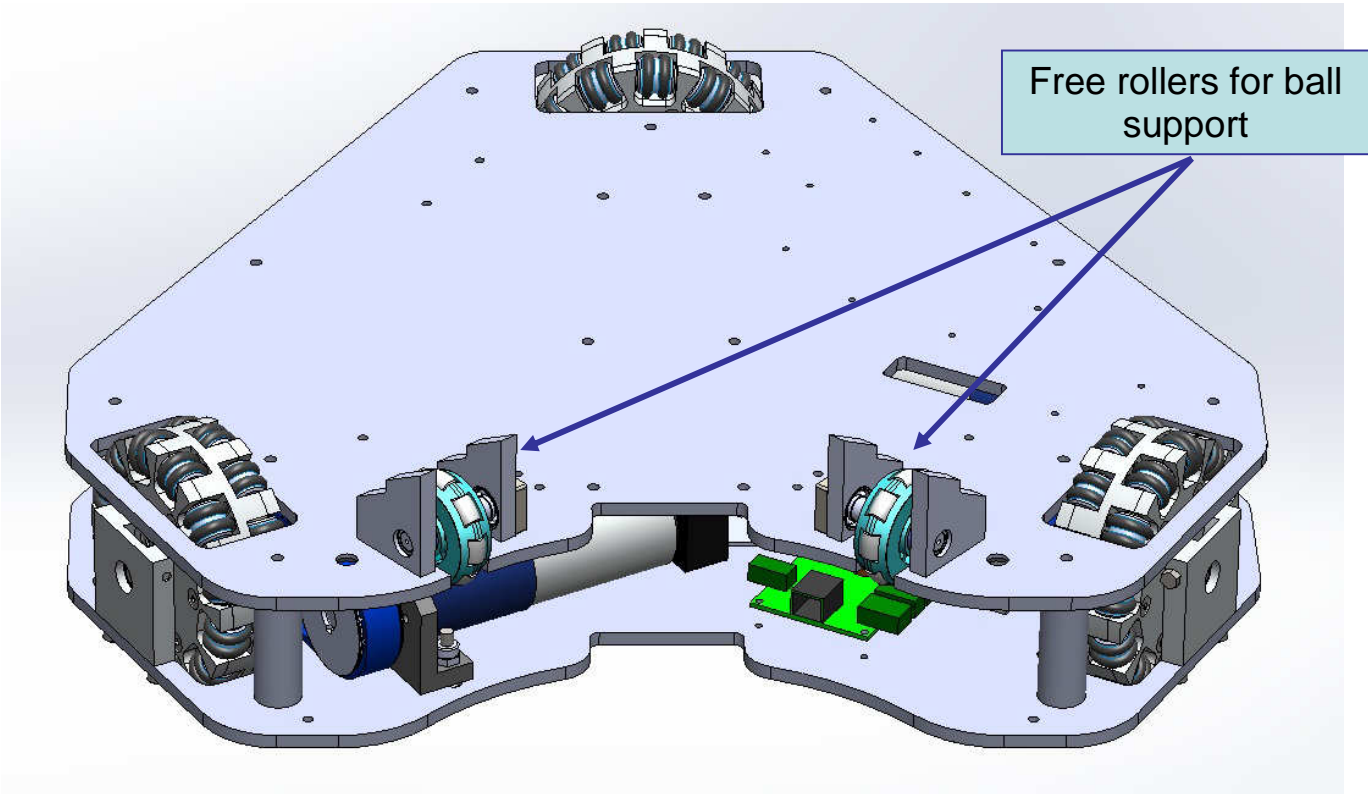


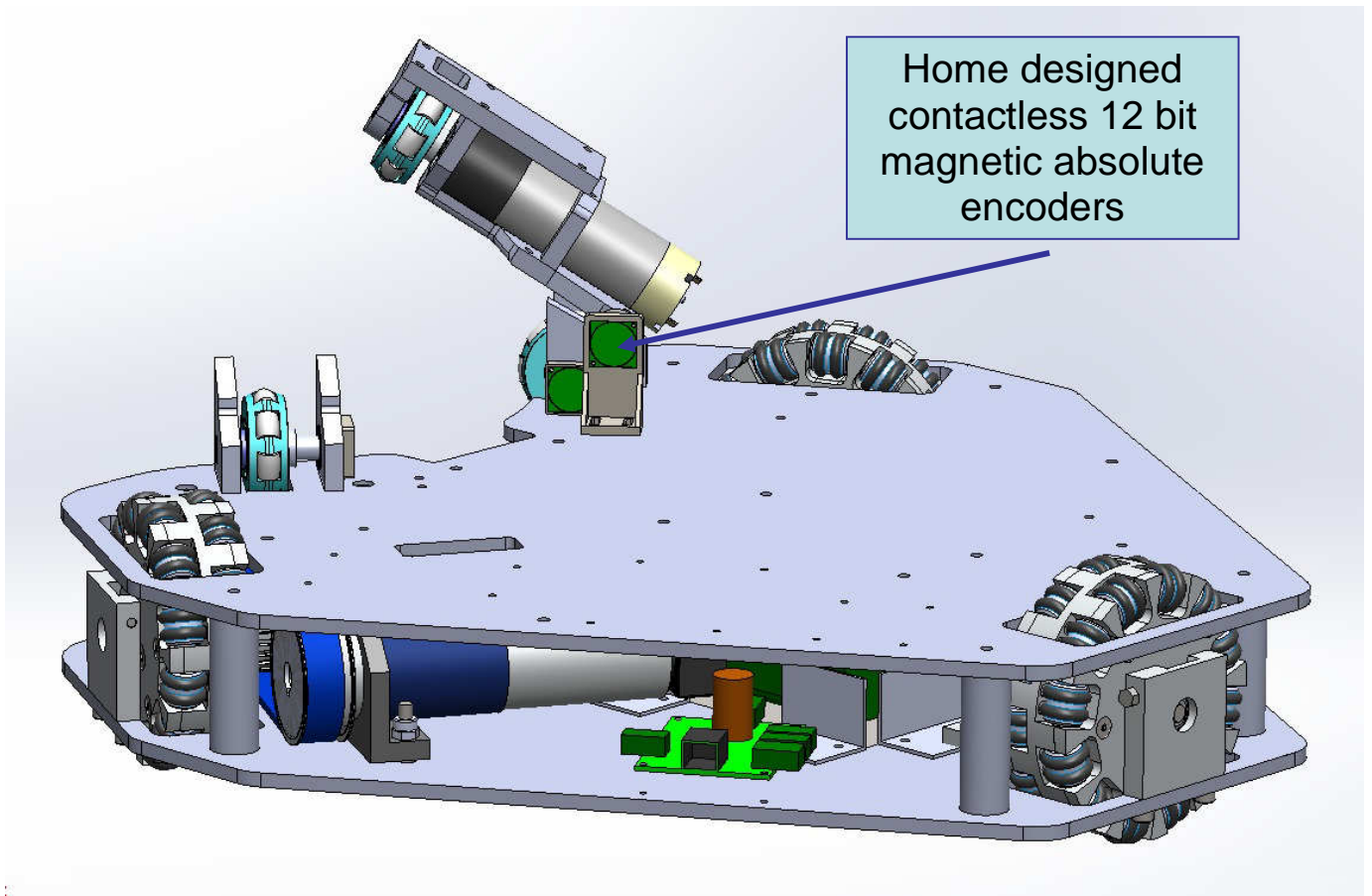
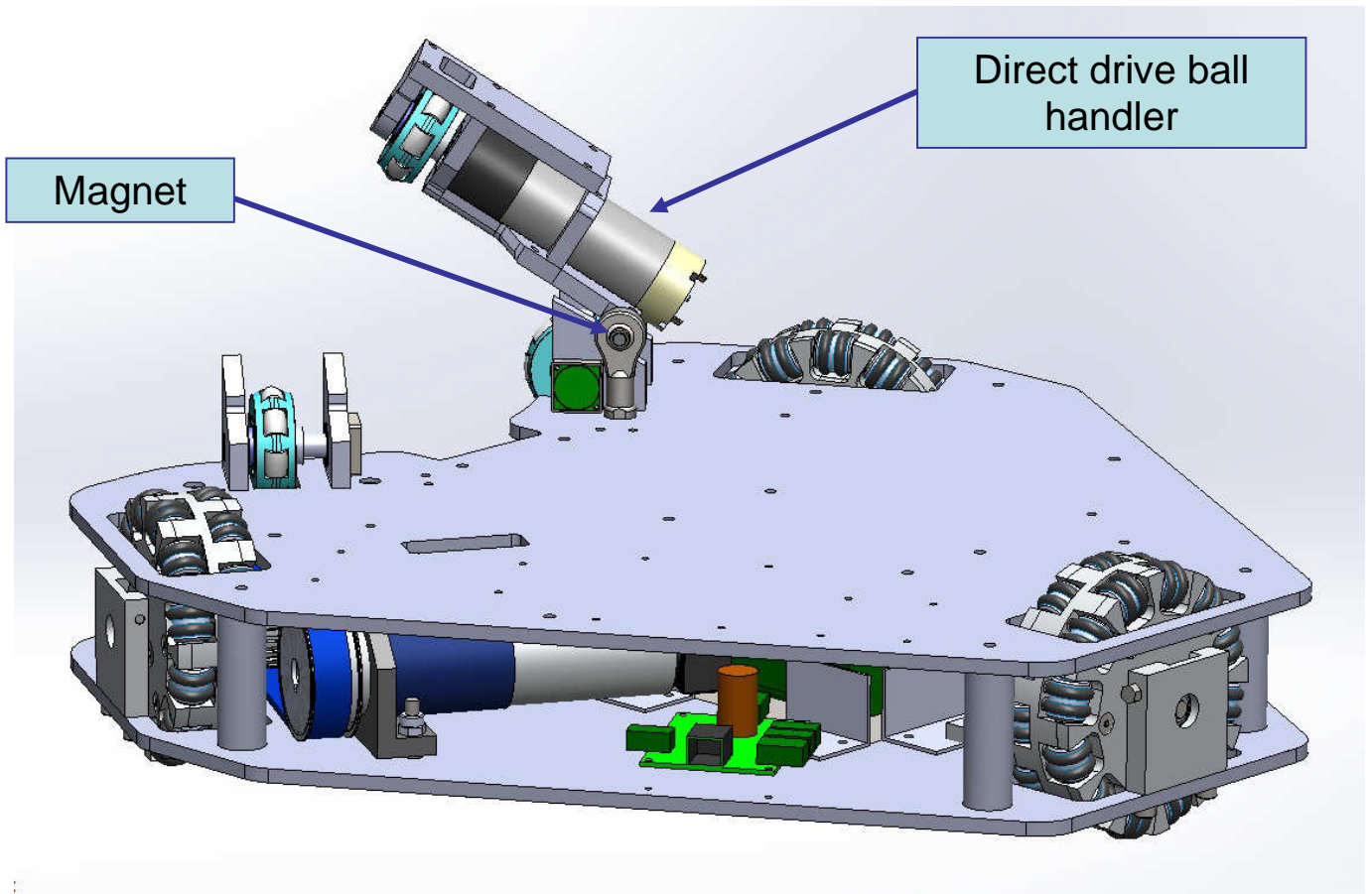
Home designed  
battery charging  
control



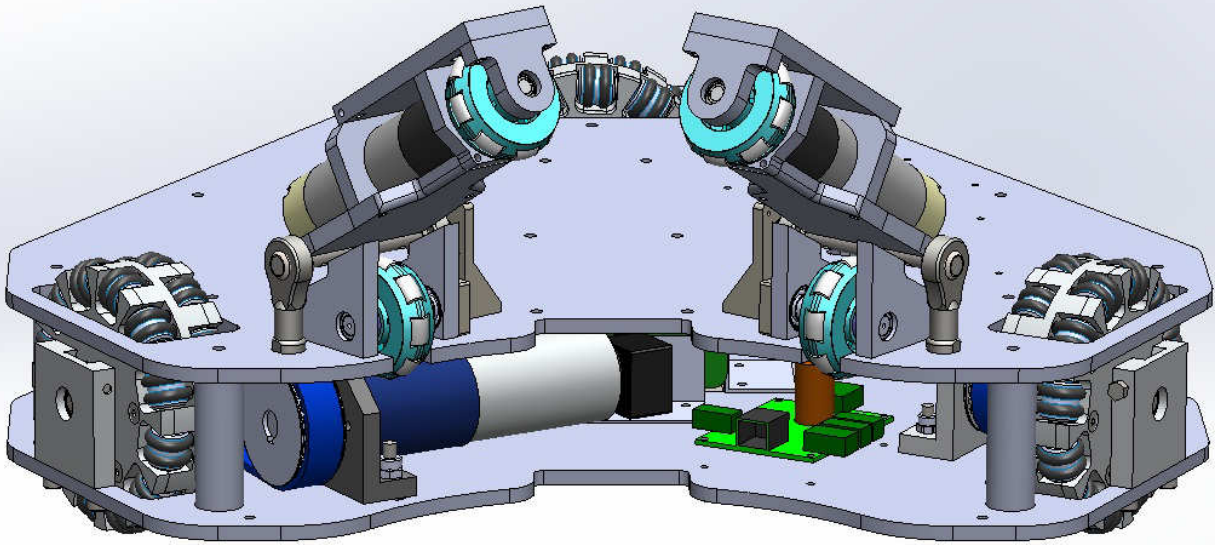
Sandwich base  
layer (6cm thick)



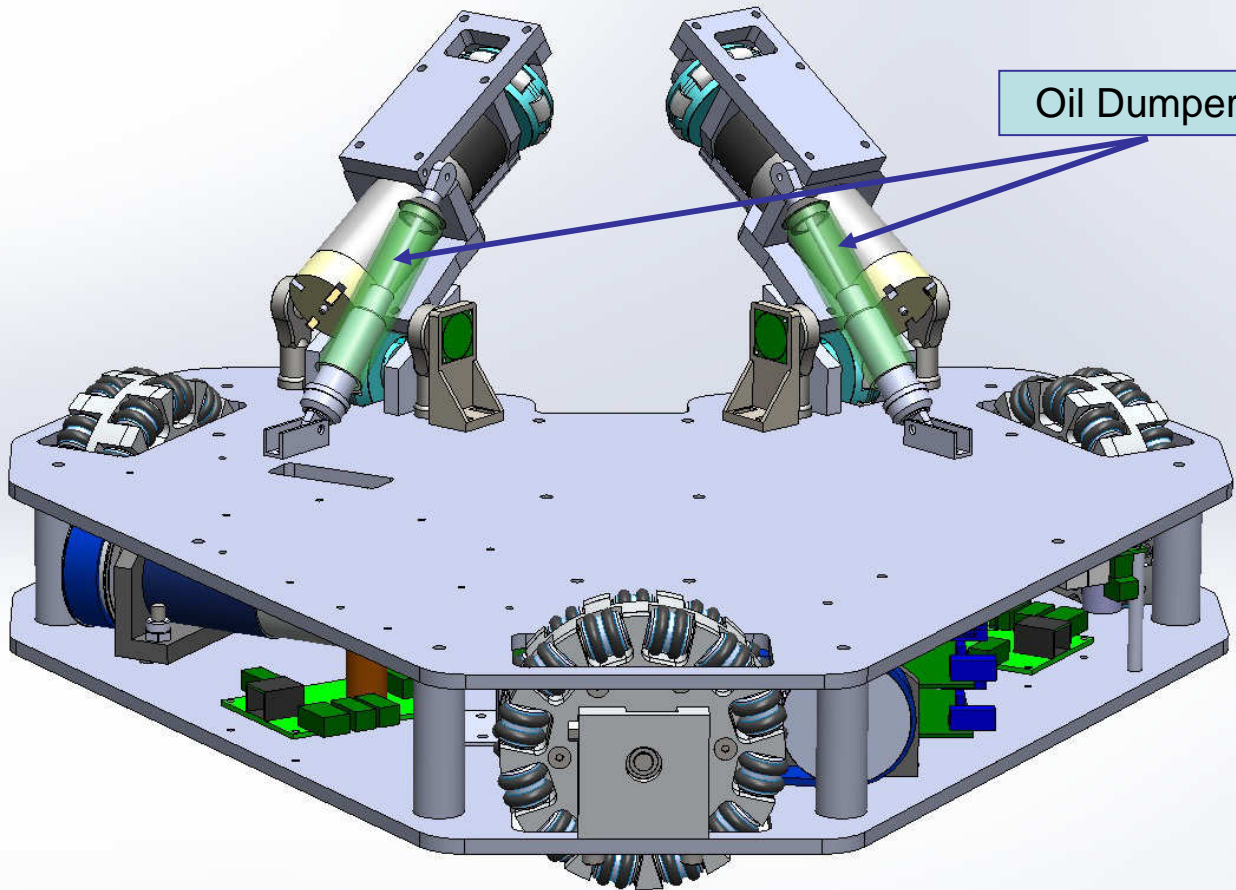


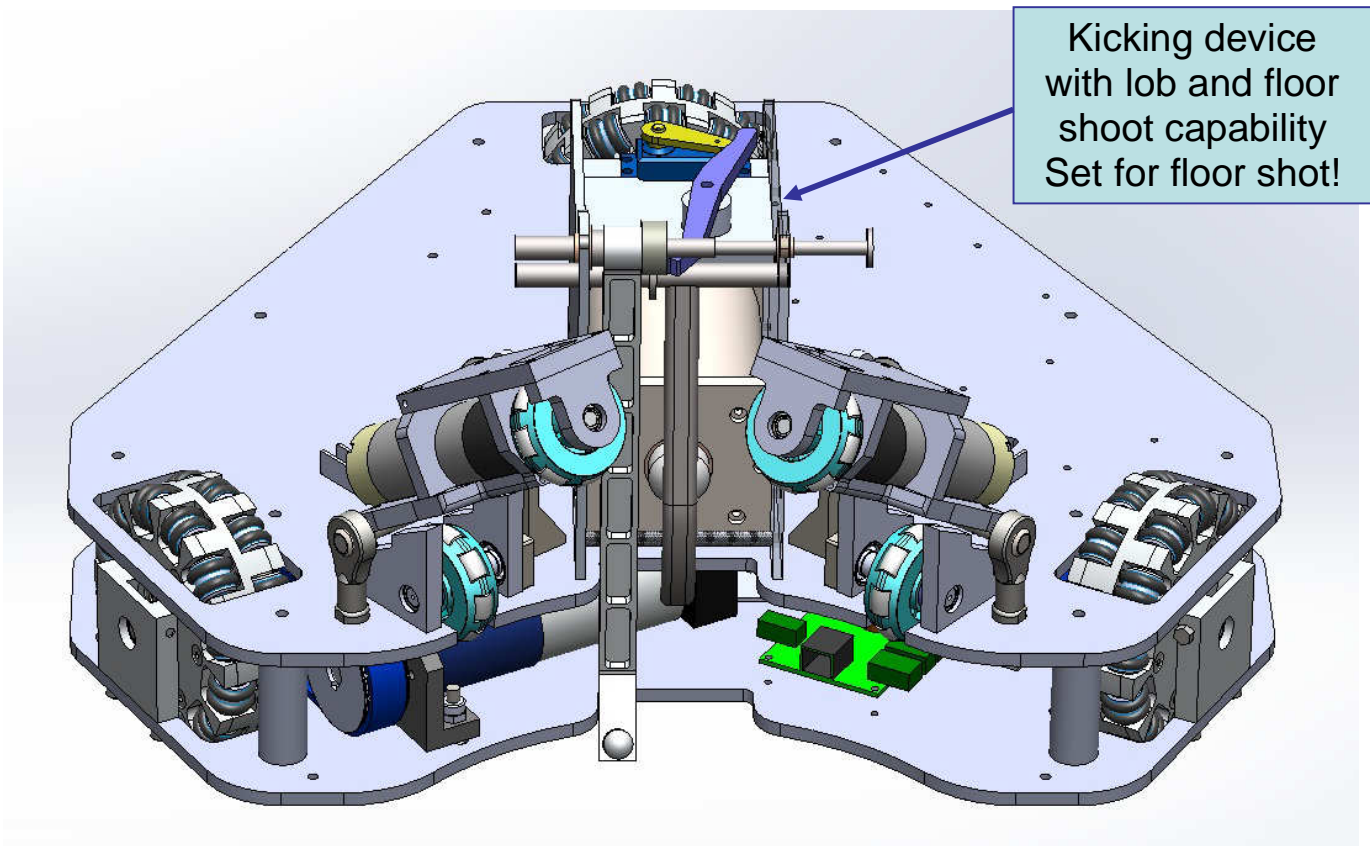
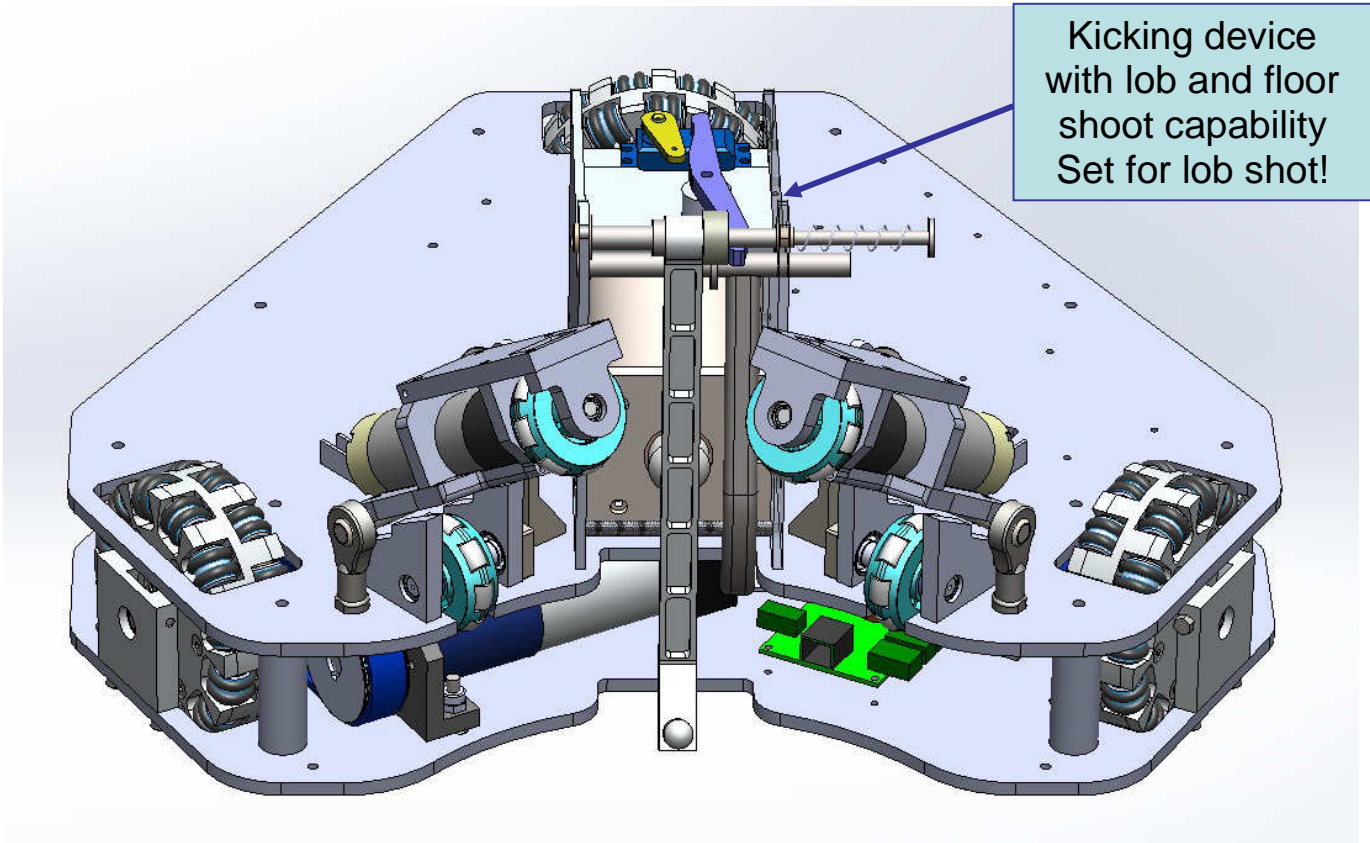


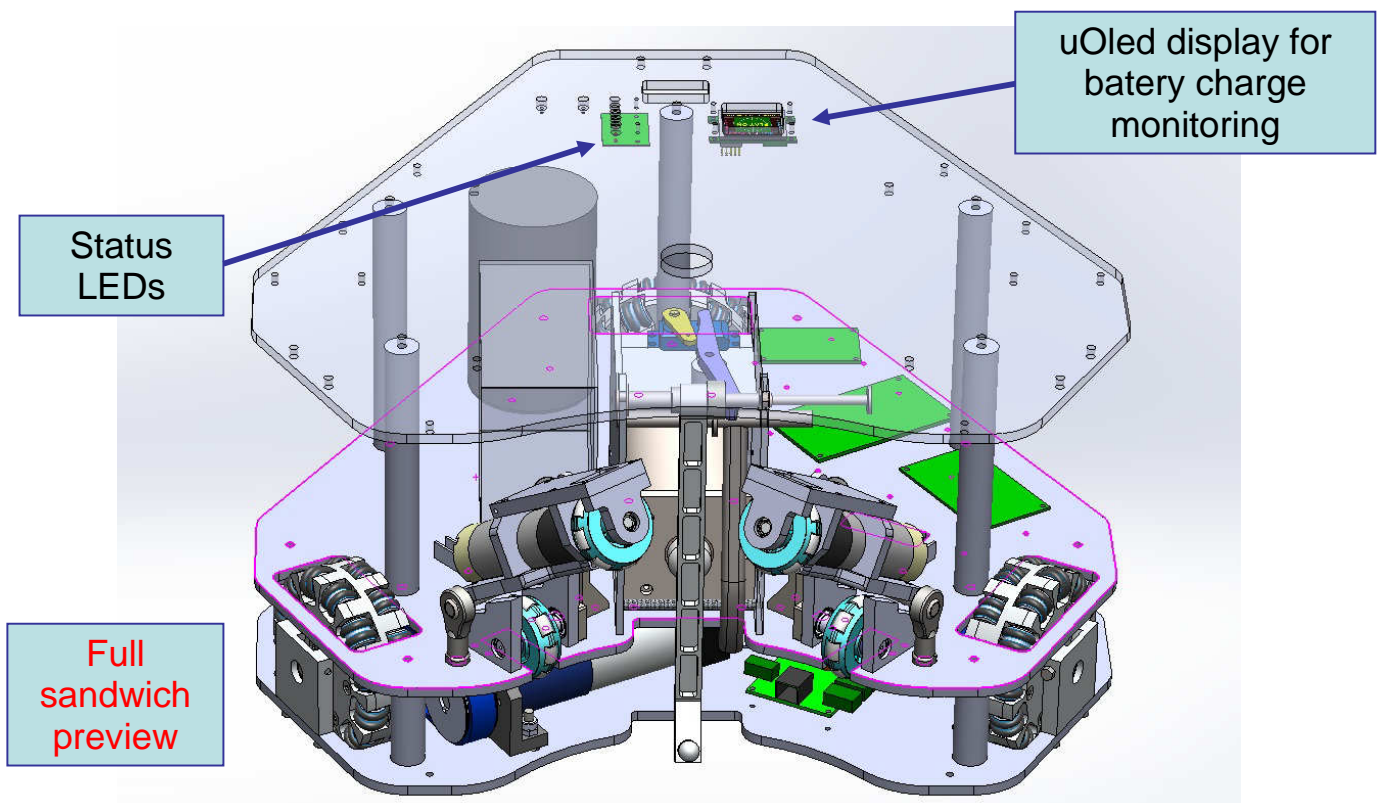
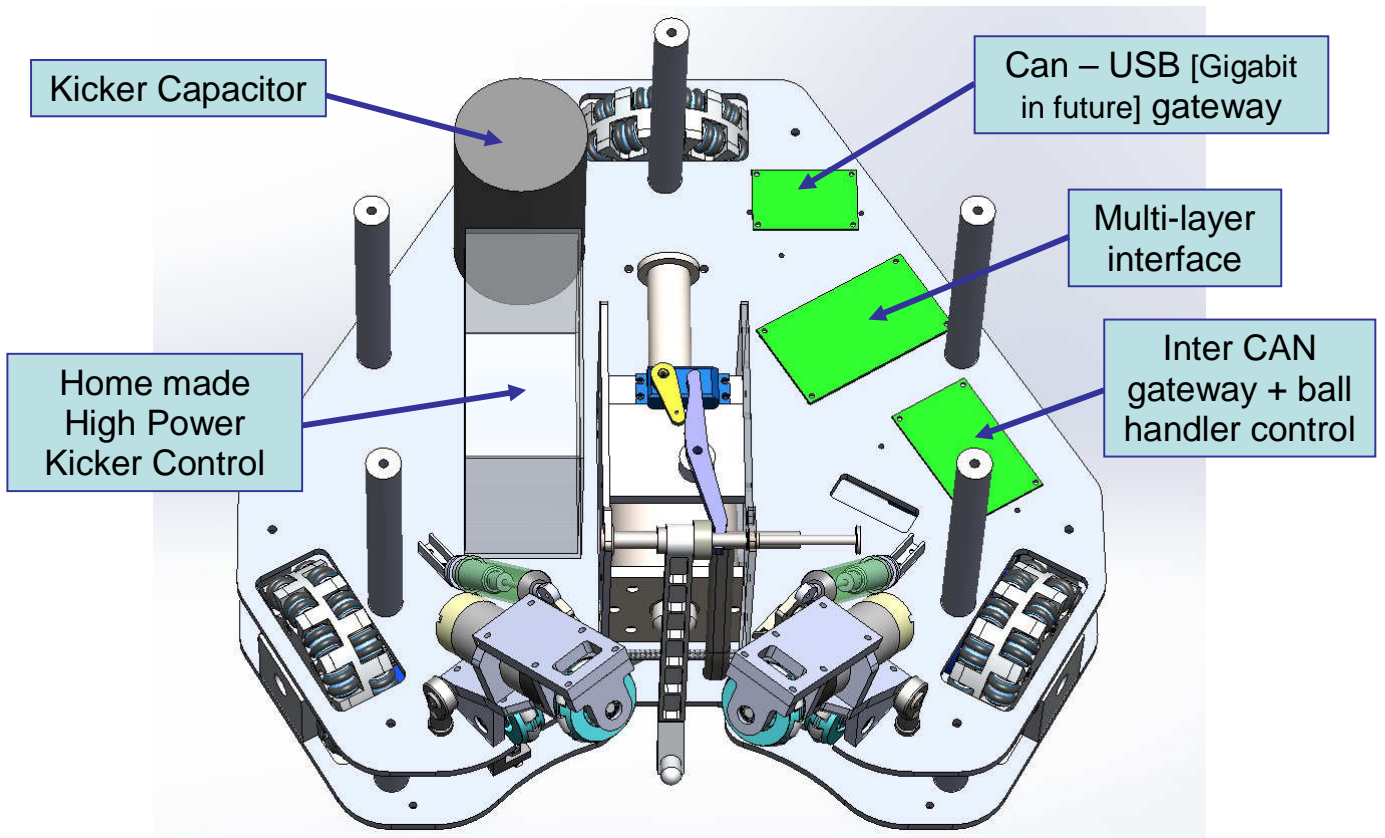
Ball handling pair



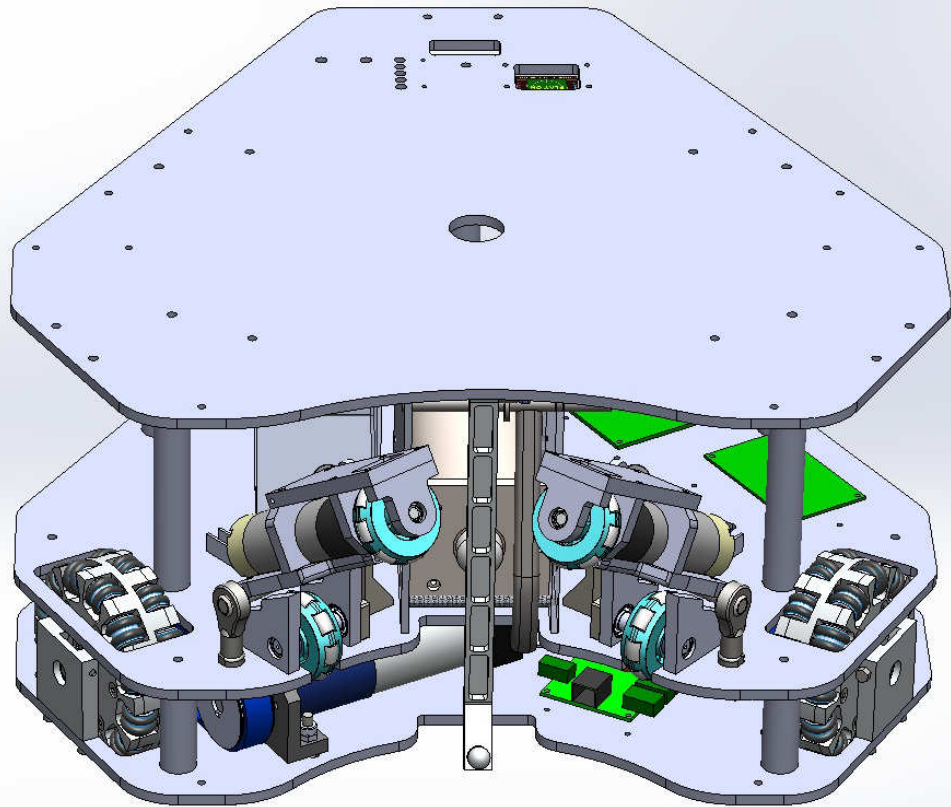
Oil Dumpers



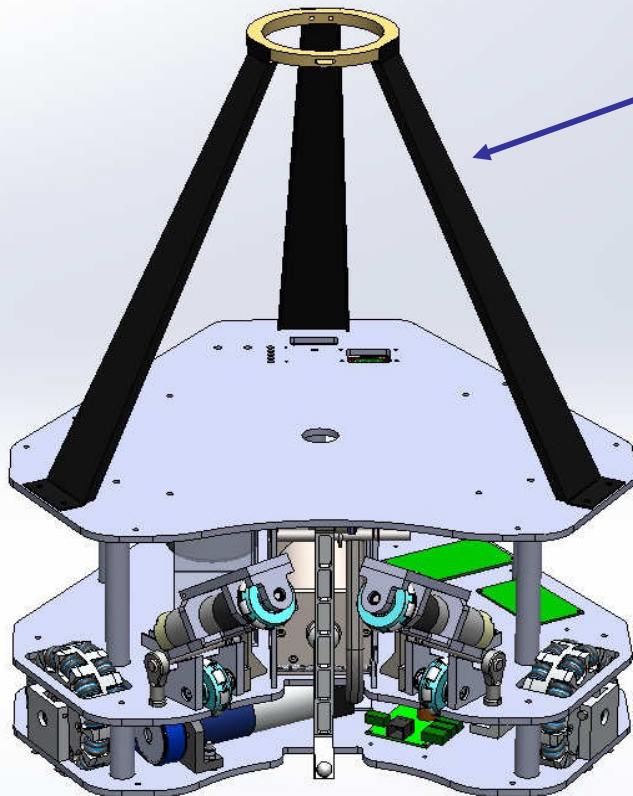


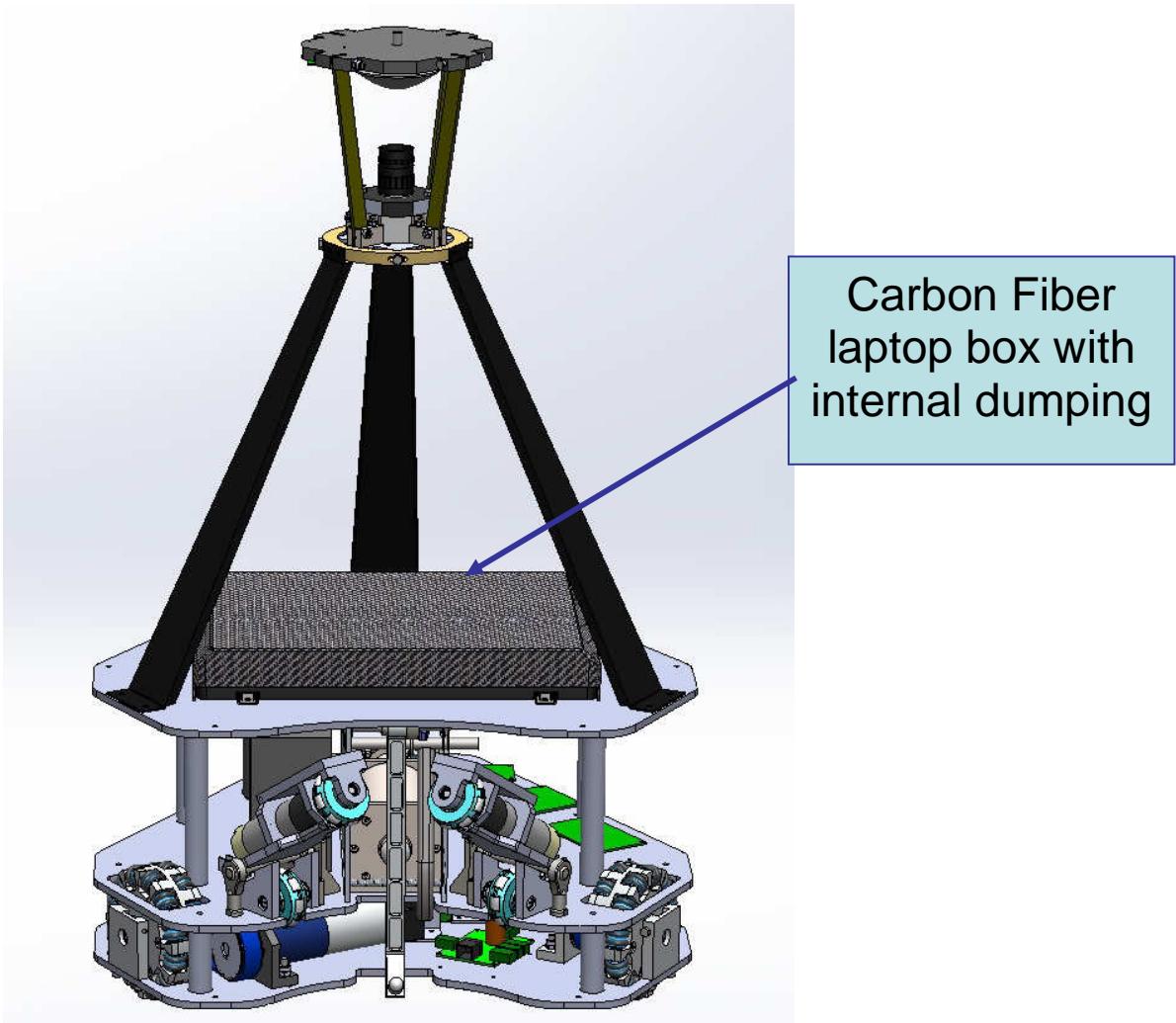
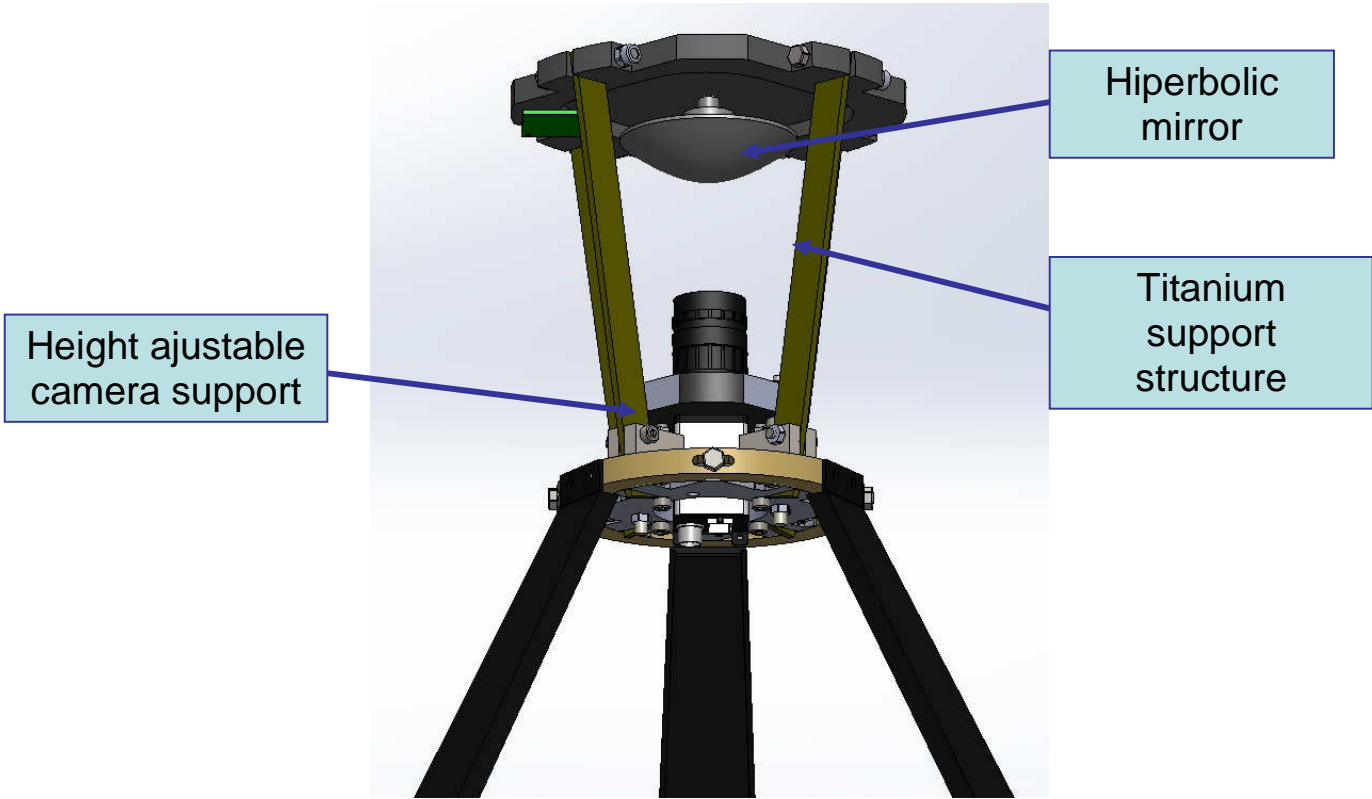


Final  
assembled  
sandwich

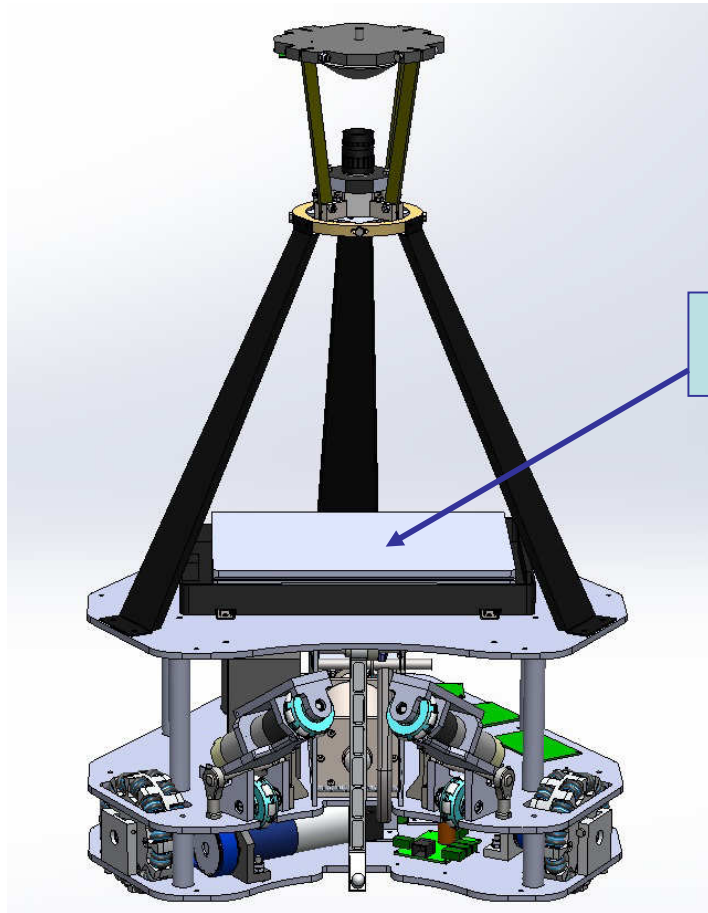


Vision system  
support structure

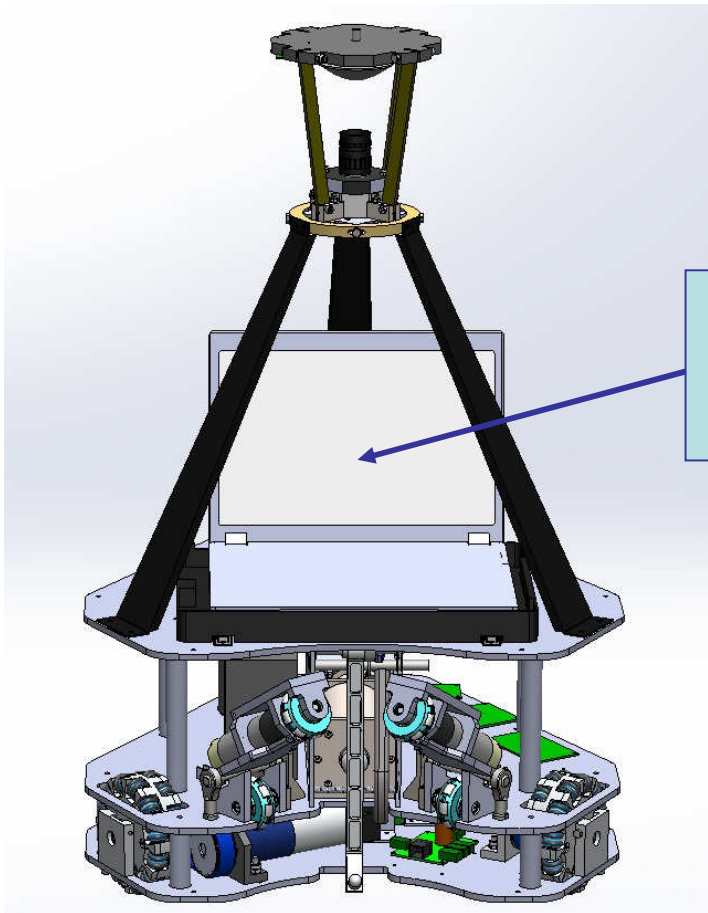




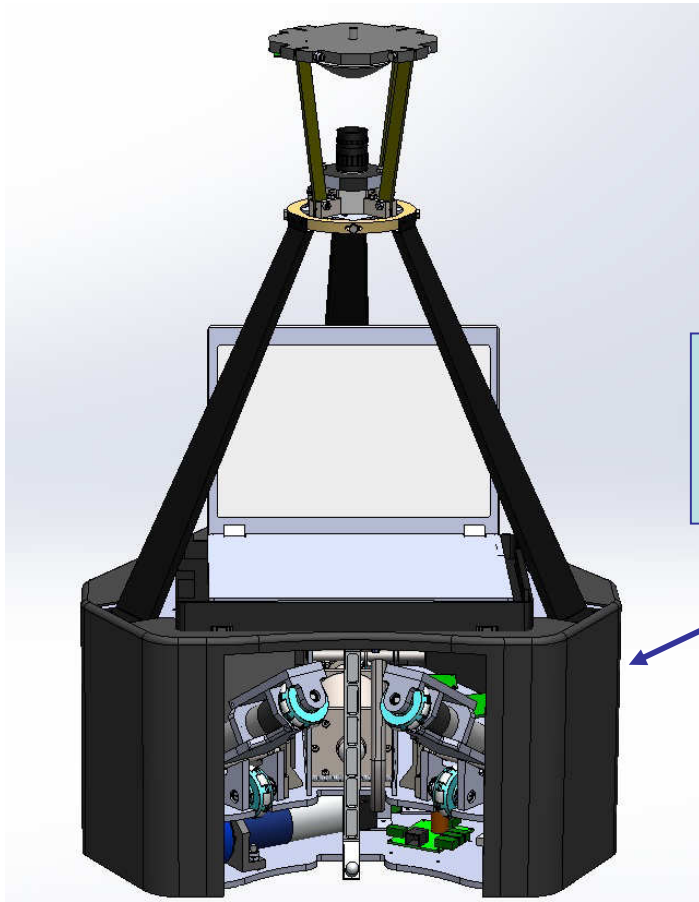




Laptop box without lid



Laptop slid to the front and opened allowing direct acces



External duming  
protection  
Black carpet  
outside



READY TO  
GO!!!