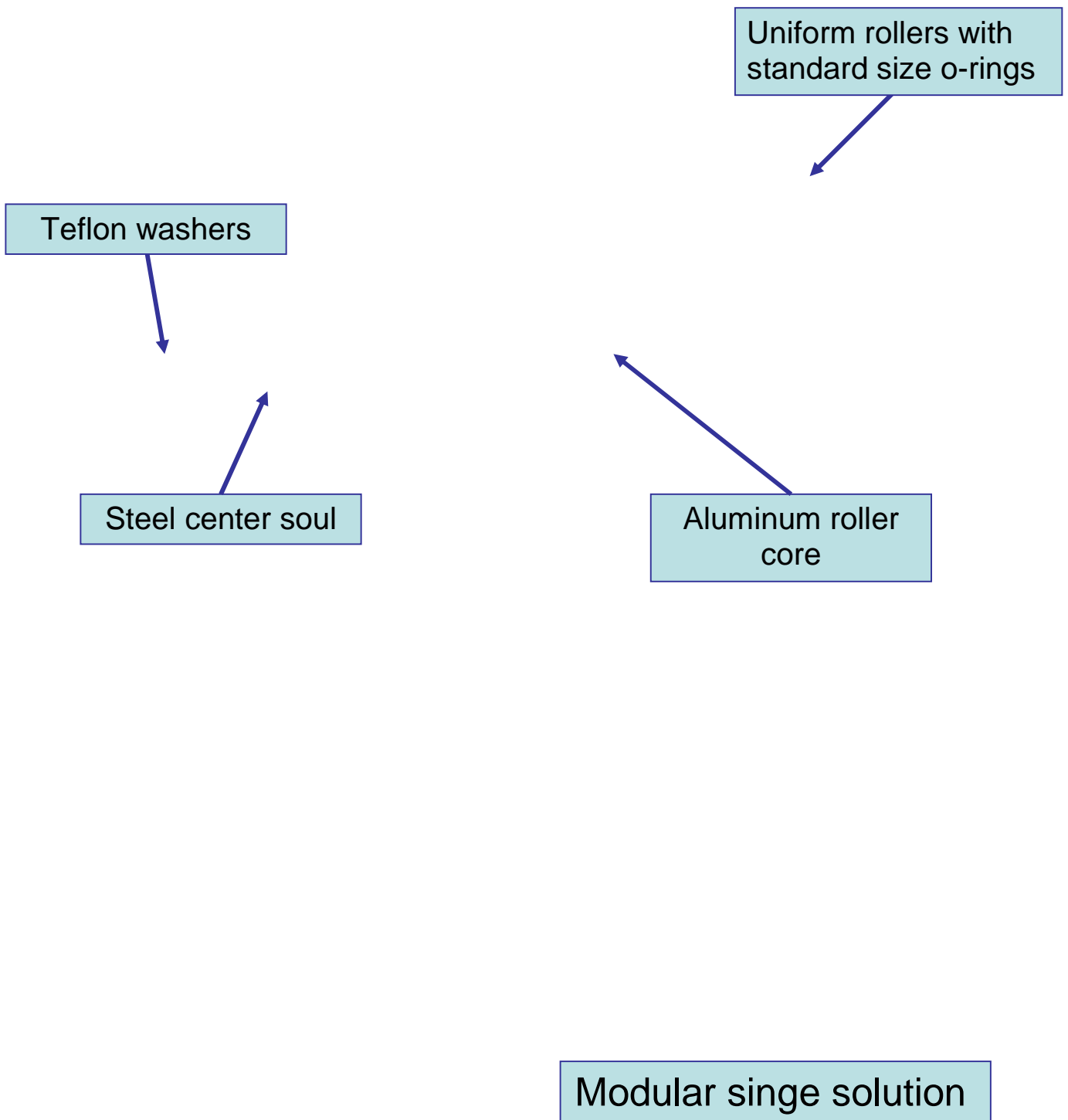
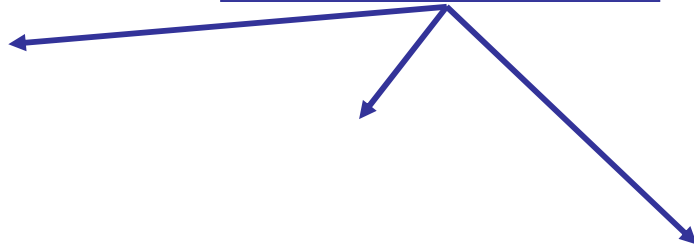


## **CAMBADA 2013 new Platform Hardware Design**

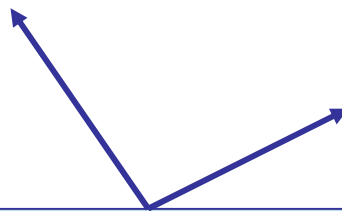


Aluminum central core  
+ 2 aluminum covers



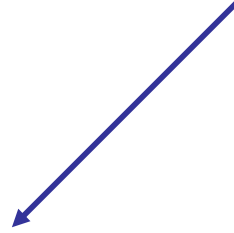
**Easy to un-assemble  
and maintain**

2 Groups of 12 rollers  
offseted by 15‰



**Assembled complete  
wheel**

Transmission through  
synchronous pulley



6mm hard aluminum  
bottom sandwich structure



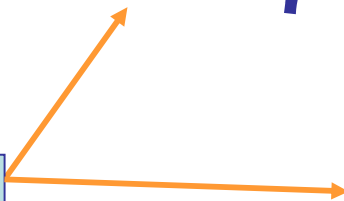
Wheel support



Easy solution for wheel removal



Just remove the pins

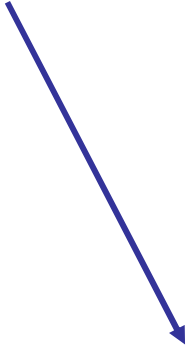


Wheel set in place



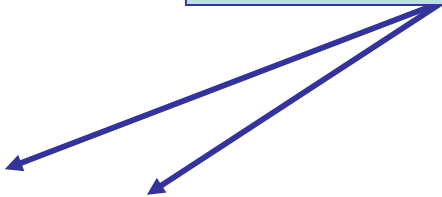
Wheel set in place

Traction setup with  
adjustable ratio factor



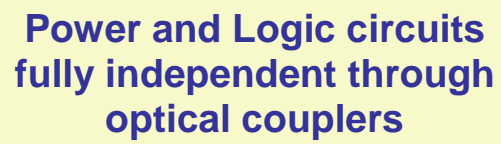
Traction Final Assembly

2 LIPO batteries for Power  
devices + 1 for Logic



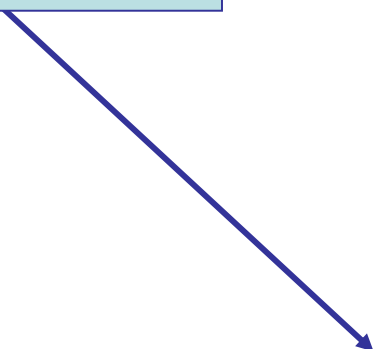
Two blue arrows originate from the bottom of the top box. One arrow points diagonally down and to the left towards the 'Power' section of the central box. The other arrow points diagonally down and to the right towards the 'Logic' section of the central box.

**Power and Logic circuits  
fully independent through  
optical couplers**



The central box is divided into two horizontal sections. The top section is labeled 'Power' and the bottom section is labeled 'Logic'. Both sections are connected to the 'Fuse box' on the left. The 'Power' section is connected to a 'Power supply' and a 'Power distribution' block. The 'Logic' section is connected to a 'Logic supply' and a 'Logic distribution' block. The two sections are connected to each other via 'Optical couplers'.

Fuse box with easy  
access



A single blue arrow originates from the bottom of the 'Fuse box' box and points diagonally down and to the right towards the 'Power' section of the central box.

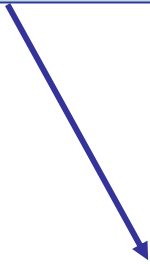
İçten %100 from bottom

Home designed,  
always ON battery  
cells monitors

Home designed  
motor controllers

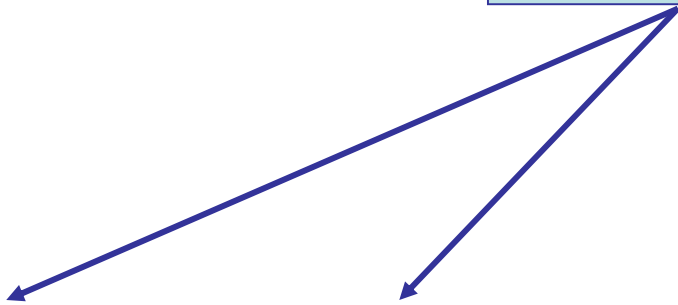


Home designed  
battery charging  
control

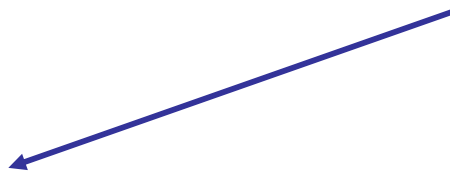


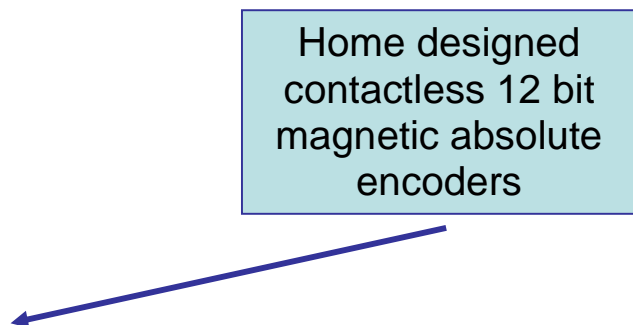
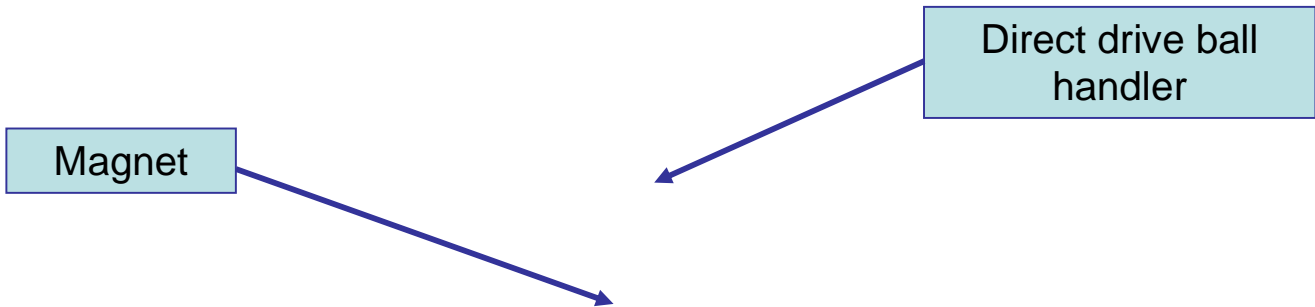
Sandwich base  
layer (6cm thick)

Free rollers for ball support



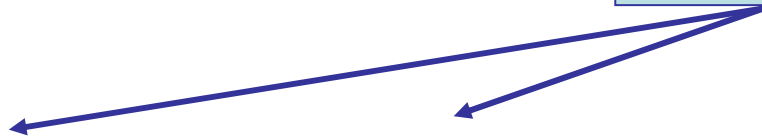
Home designed  
contactless  
magnetic absolute  
encoders







Ball handling pair

Oil Dumpers





Kicking device  
with lob and floor  
shoot capability  
Set for lob shot!

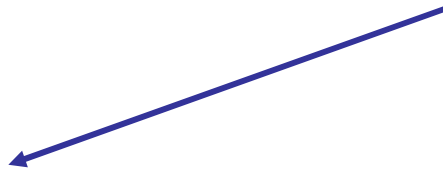


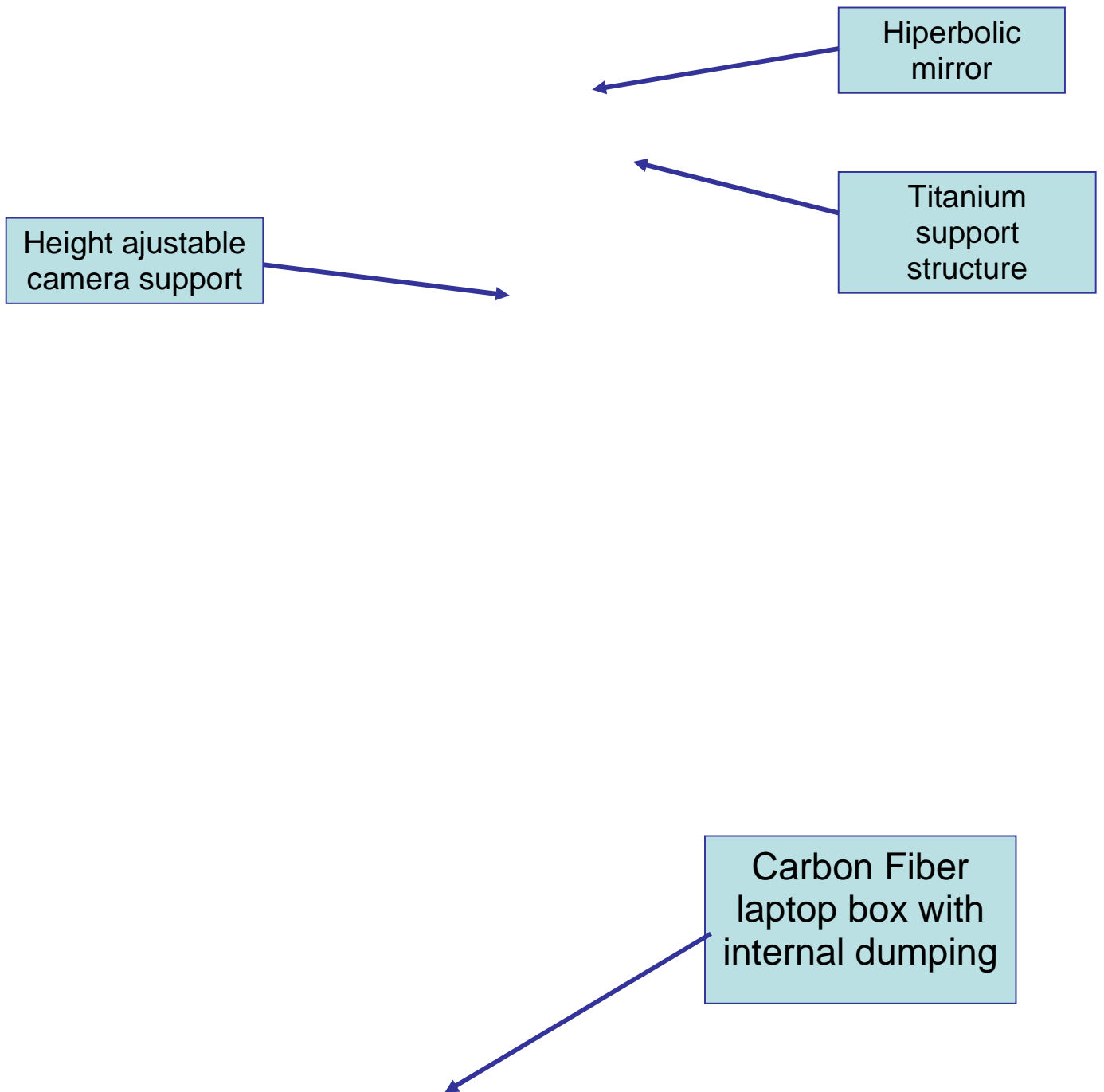
Kicking device  
with lob and floor  
shoot capability  
Set for floor shot!



Final  
assembled  
sandwich

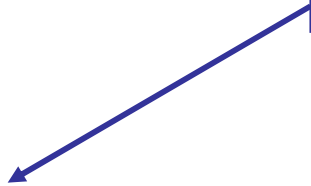
Vision system  
support structure







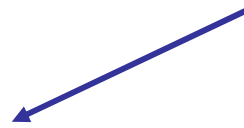
Laptop box without  
lid



Laptop slided to  
the front and  
opened allowing  
direct acces



External duming  
protection  
Black carpet  
outside



READY TO  
GO!!!