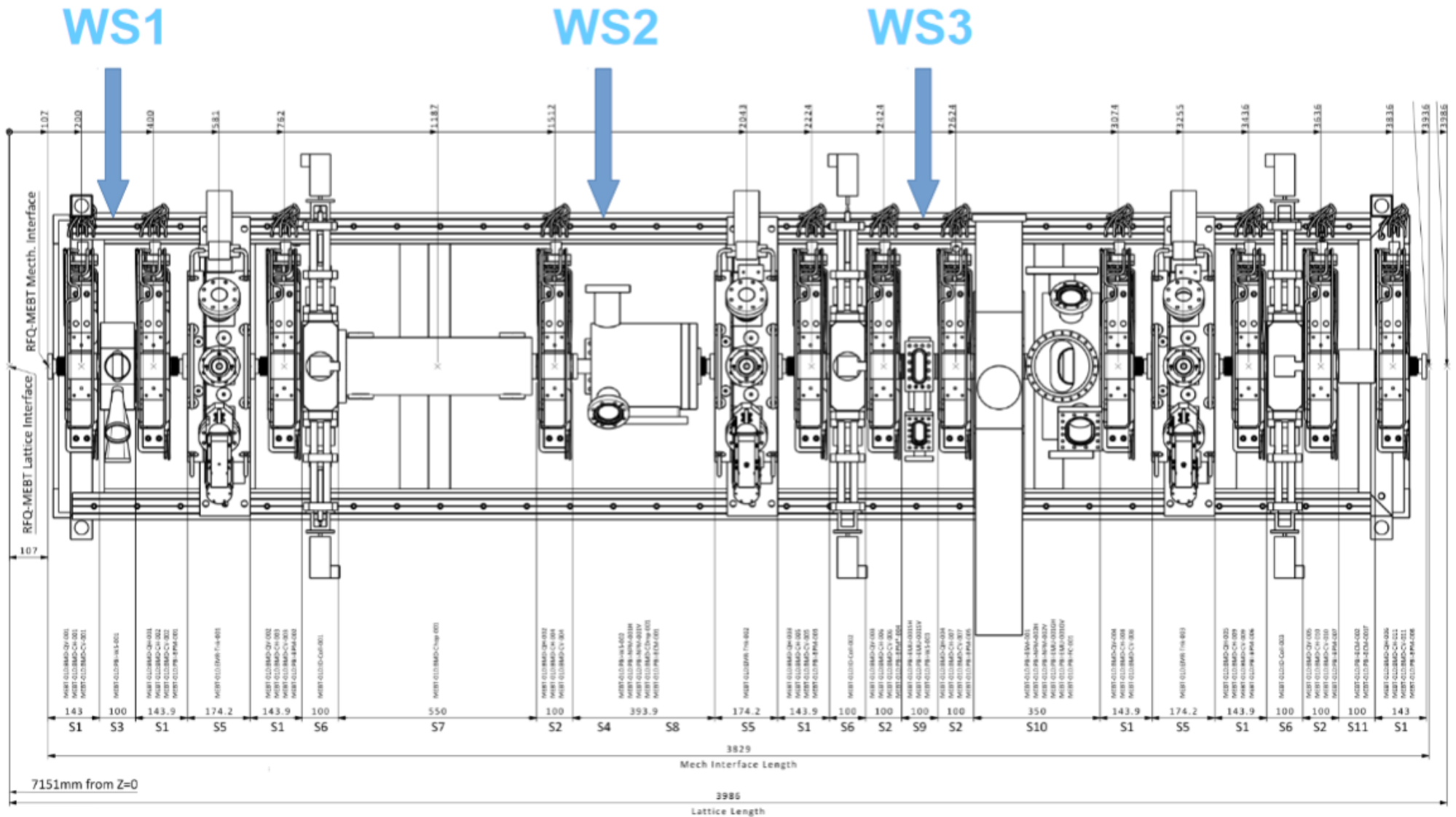


MEBT Wire Scanners

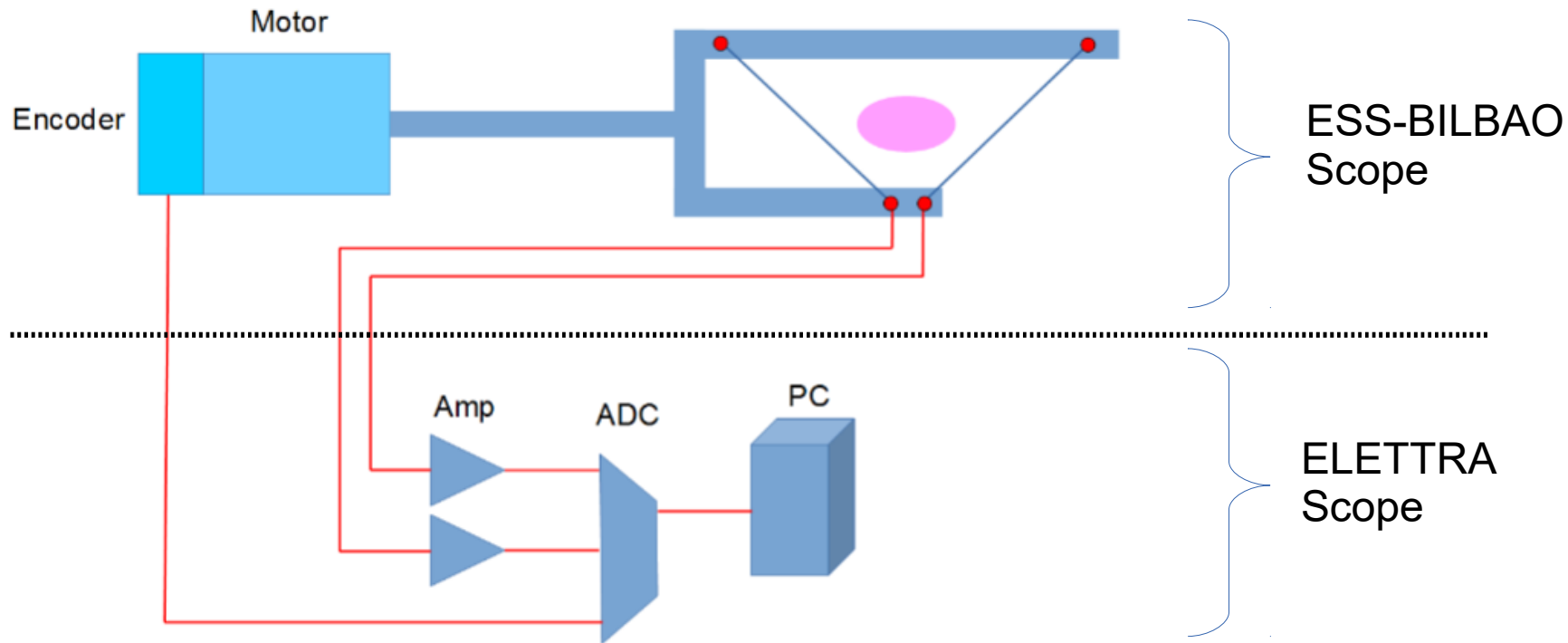
Carlos de la Cruz
Ander Serrano
Álvaro Vizcaíno
Ibon Bustinduy
29/11/2016



MEBT WS Placement

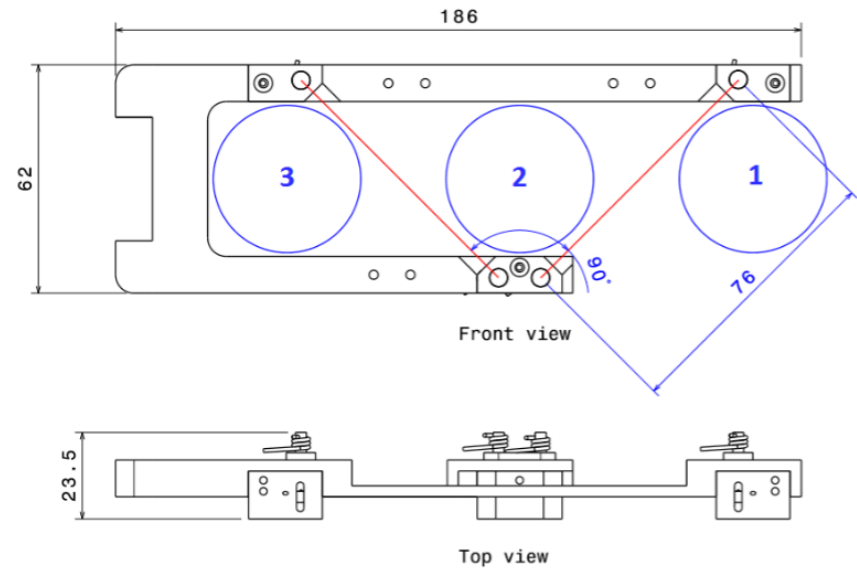
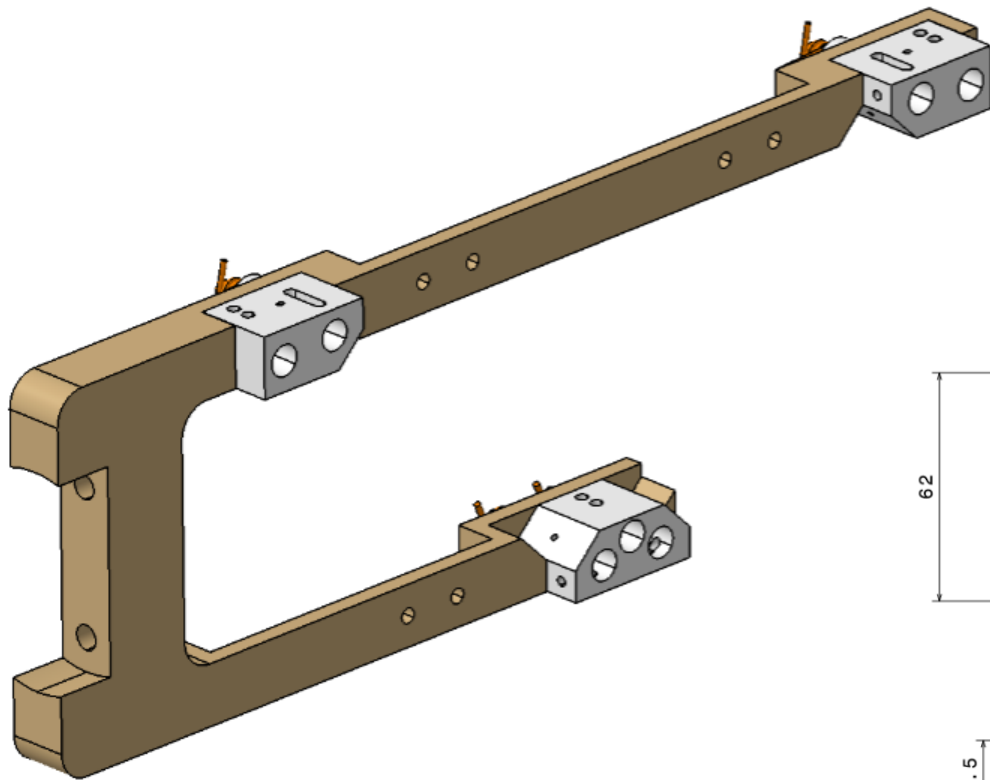


Wire Scanners requirements



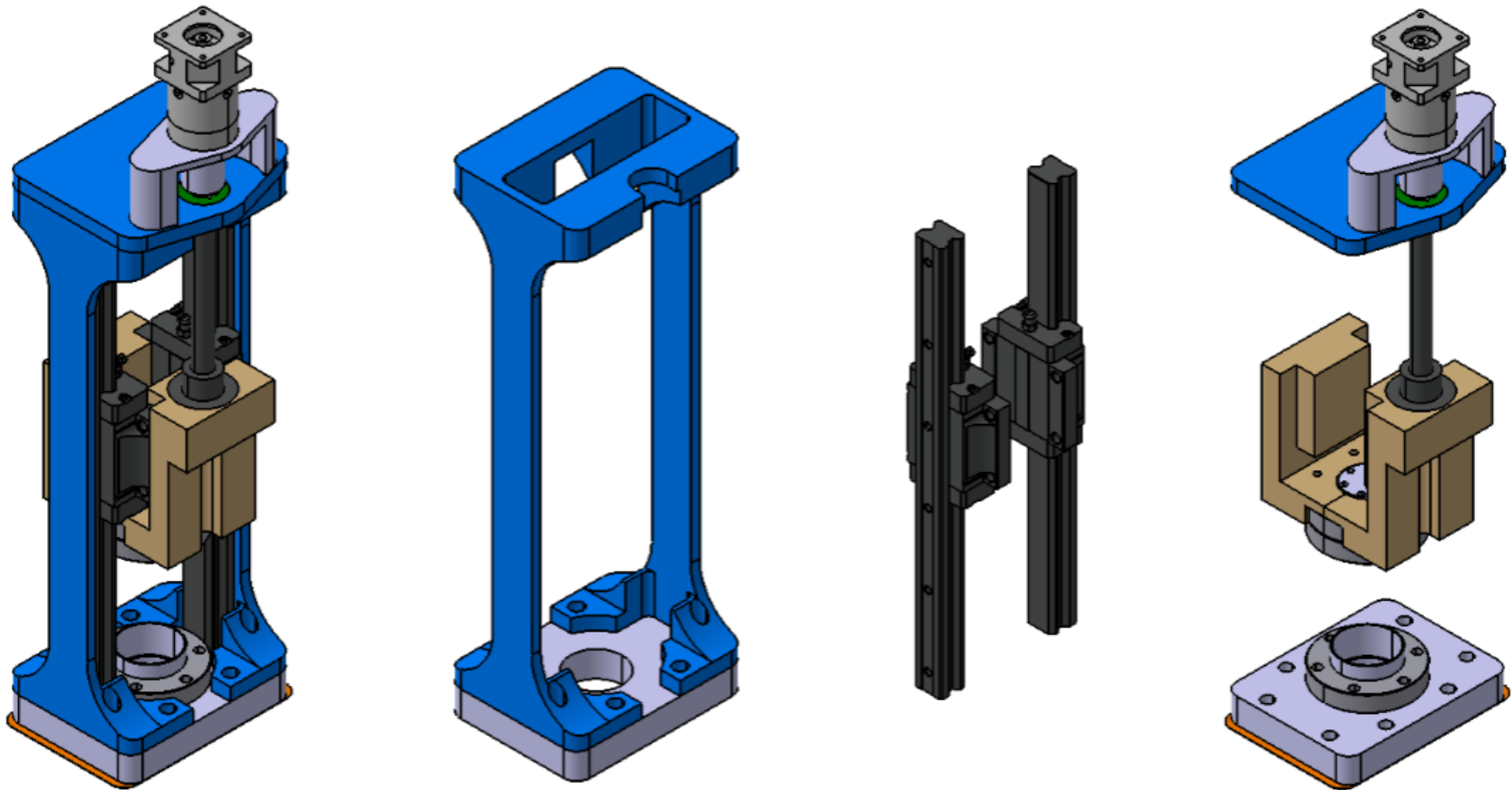
- Transverse profile measurements shall be done in the two transverse planes (Horizontal and Vertical)
- The rms transverse extension of the proton beam shall be measured with:
 - An accuracy better than 10%
 - A resolution better than 50 micrometers

Fork design



*More mechanical details @ [2nd BI Forum documentation](#)

Actuator design



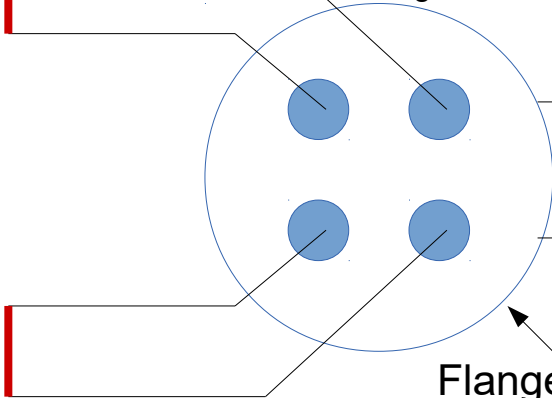
*Detailed design on progress

Connection Panel

Kapton wire Allectra
311-KAPM-035-RAD
65 pF/m – 225Ω/km
Length ~ 500 mm

Triaxial cable
Belden 9222
30.8 pF/ft - 9.5 Ω/1000 ft
Length ~ 500 mm

Connection panel



Flange with Triaxial
Feedthrough Allectra
243-TRIAX-C40-4
Rated 500 VDC



4 x Triaxial
Connectors
To Front-End

DB9 to MPS

DB9 to Motion
Controller

DB15 to Motion
Controller

Souriau to Motion
Controller

Encoder
TBD

Cable TBD

Motor
TBD

Cable TBD