

Progress of the DCS of the hypernuclear setup

Marcell Steinen

Helmholtz-Institut Mainz



Panda LV. Coll. Meeting, GSI, 8/6/16

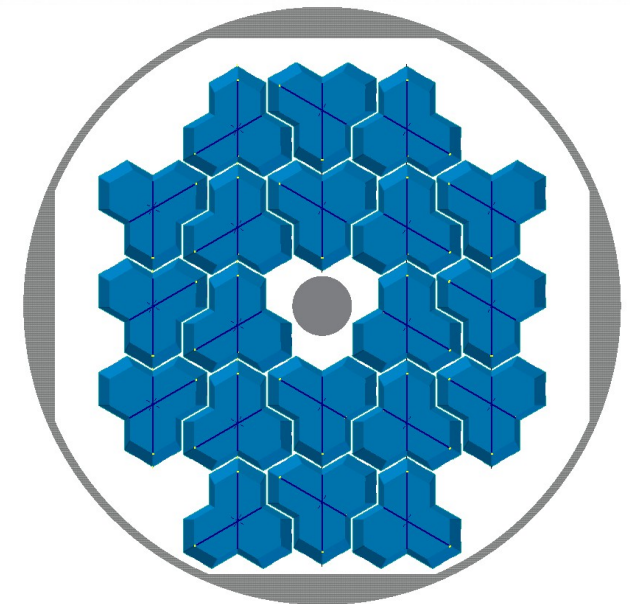
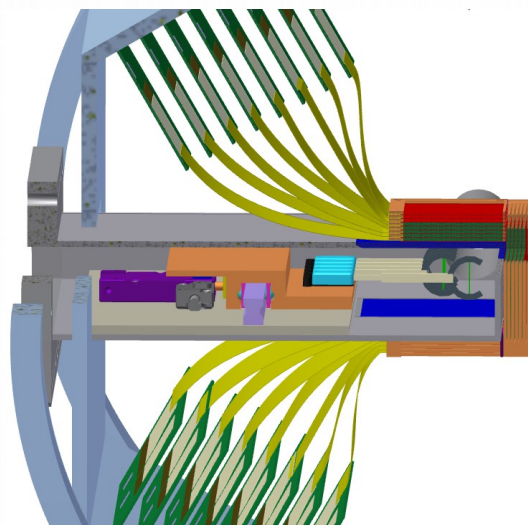
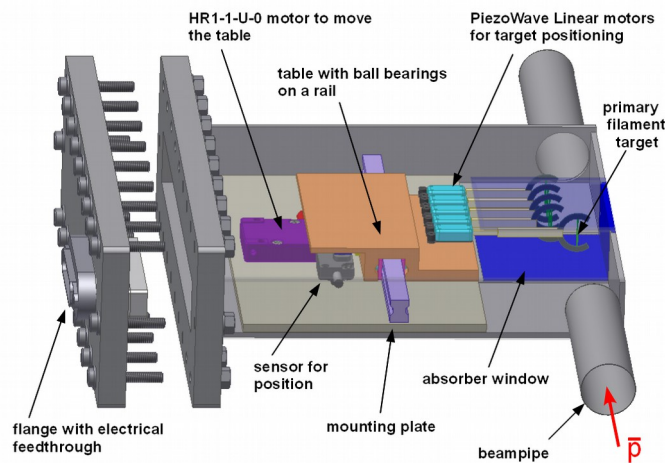
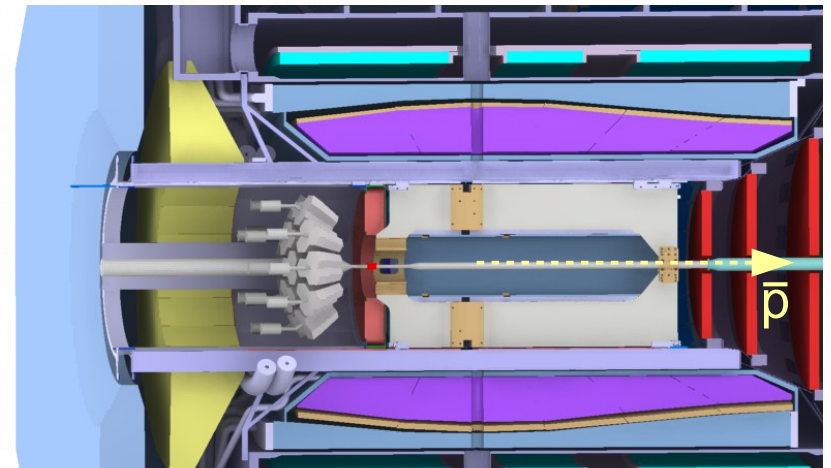


Outline

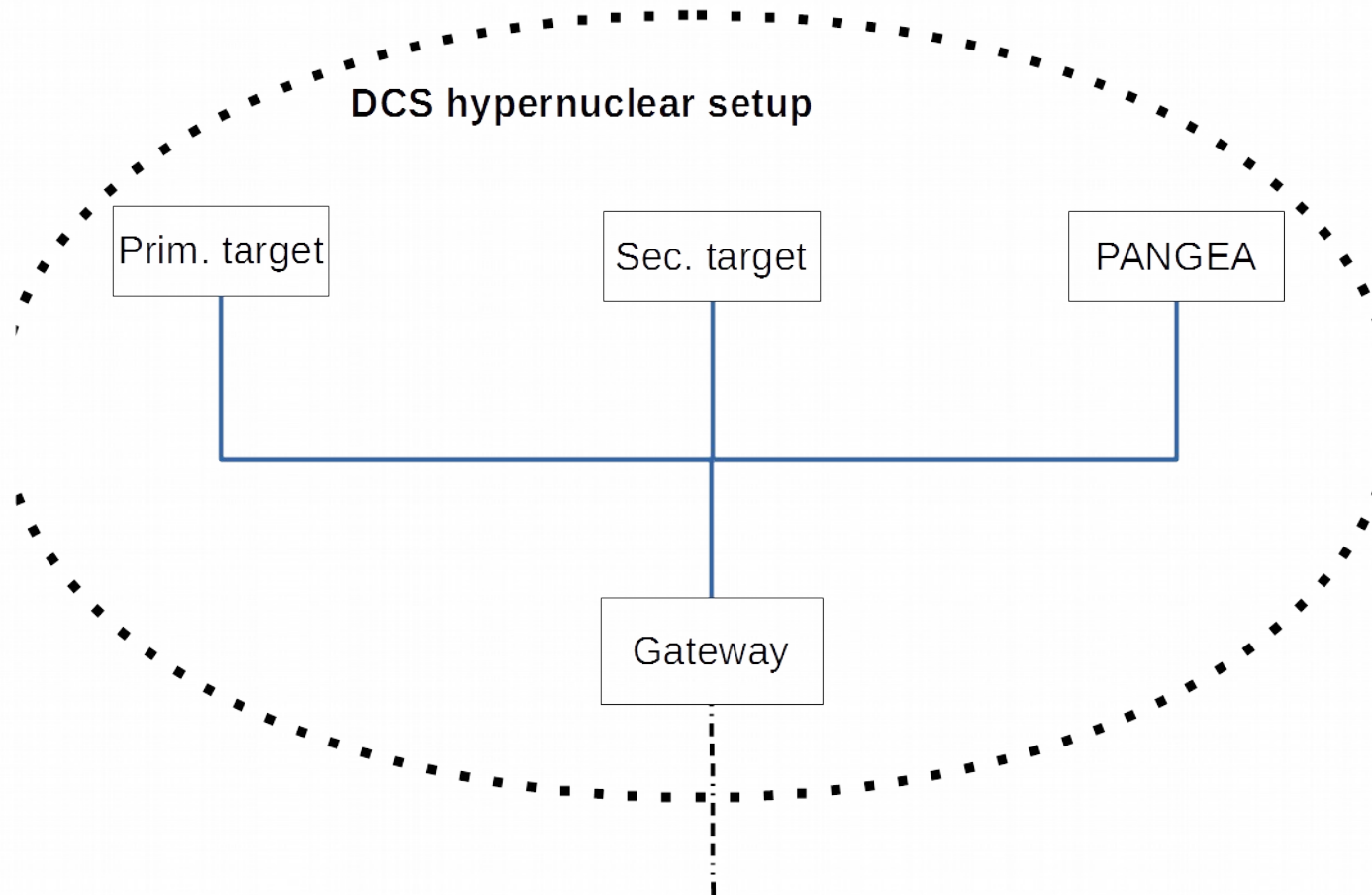
- Primary target
- Germanium (PANGEA)

Changes in the PANDA Setup

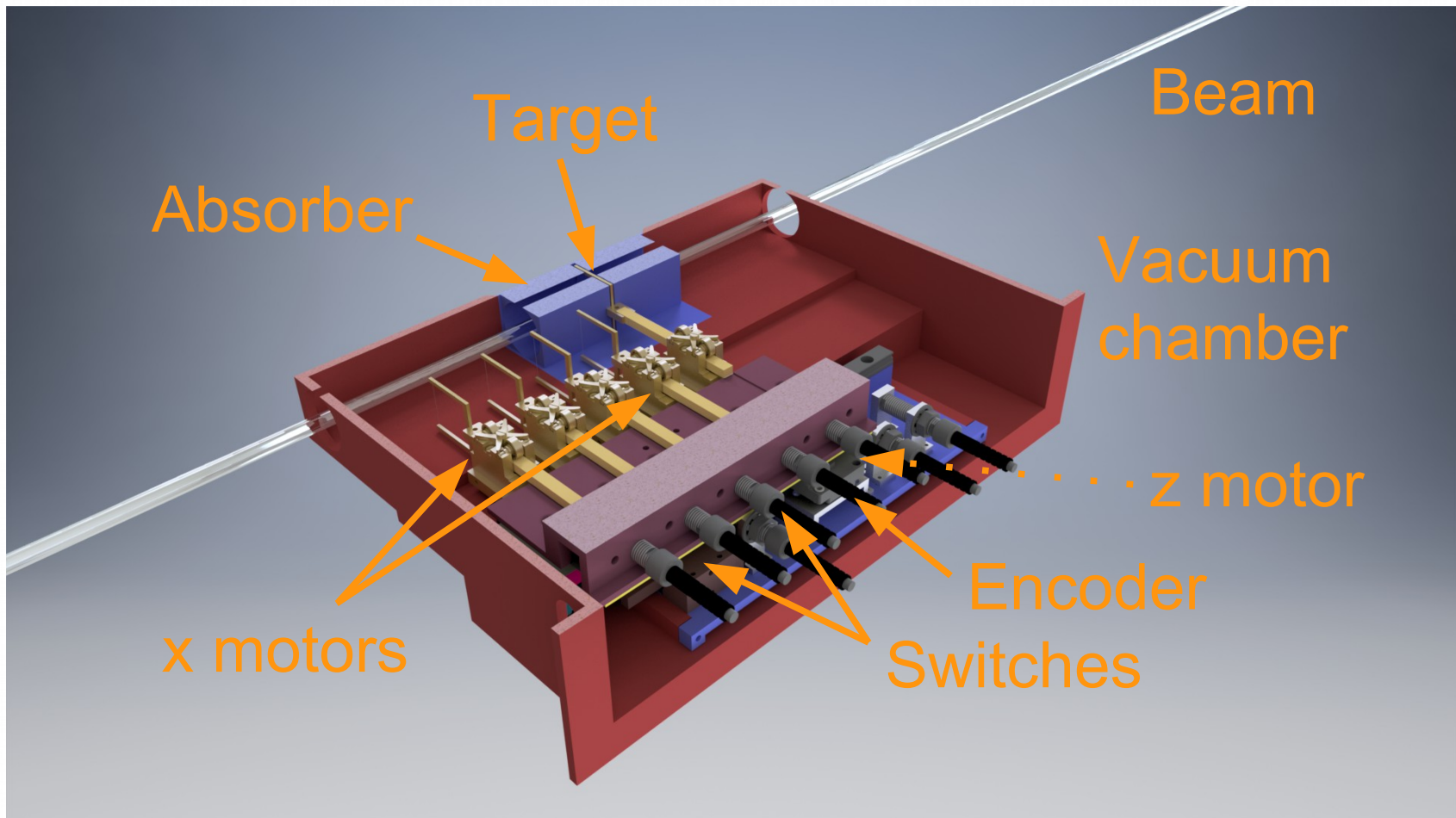
- Removal of target, MVD and backward endcap
- New beam pipe, prim. and sec. target, Germanium Array



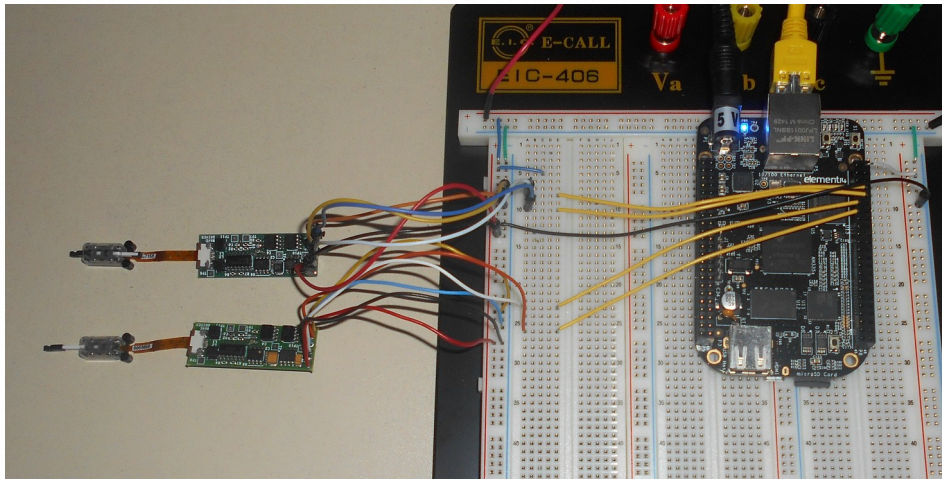
Hyp Setup – DCS Overview



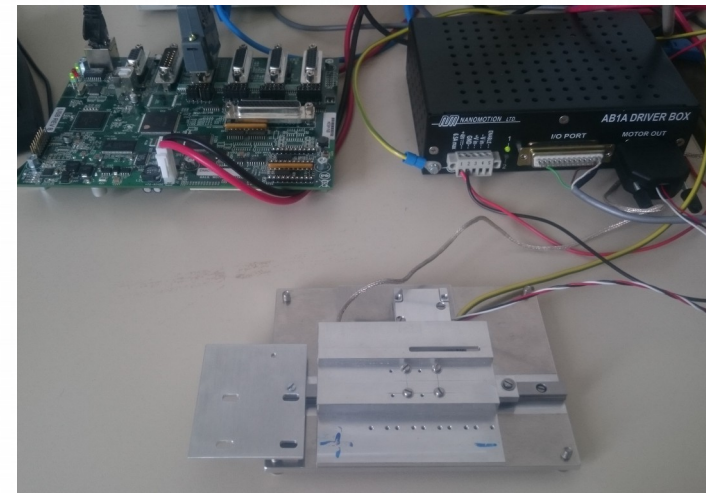
Primary Target



Primary Target – current work



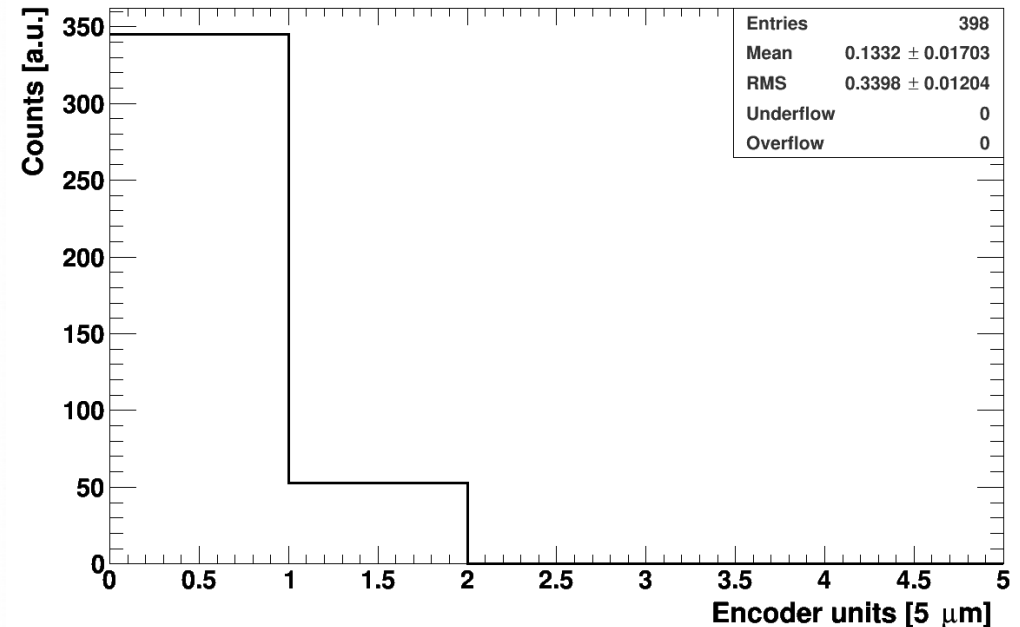
- PiezoWave (x positioning)
- Steering via beaglebone black
- EPICS, SNL
- N.Rausch (Bachelor thesis)



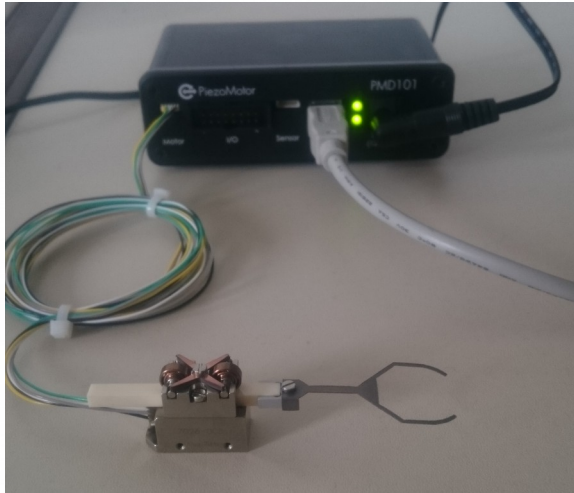
- HR1 (vacuum qualified, z positioning)
- Mercury encoder (radiation?)
- Galil board, driver box, EPICS
- C. Tiefenthaler (bachelor student)

Primary Target – HR1 some details

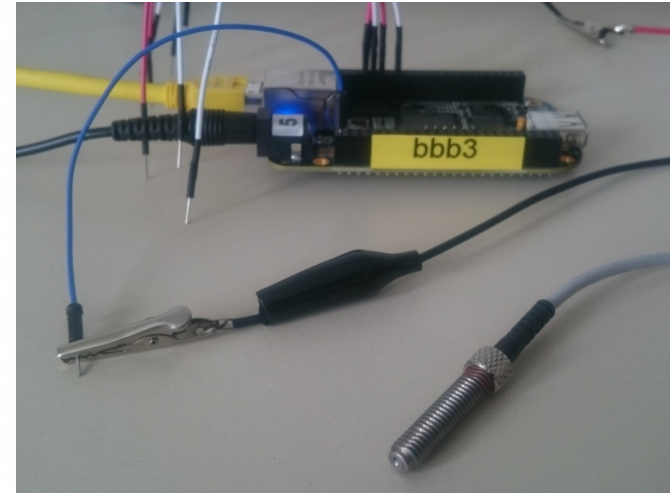
- Galil boards offers lots of parameters
- Resolution $(0.6 \pm 0.1) \mu\text{m}$
- Reset function implemented
- Stuck function implemented



Primary Target – current work



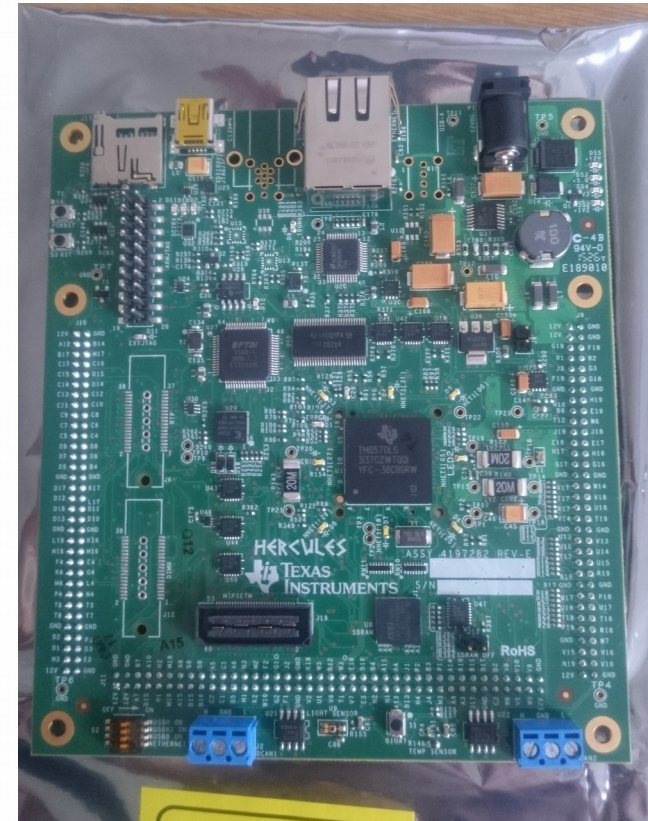
- PiezoLegs (vacuum, radiation, x and z positioning)
- Driver box PMD101
- Control via EPICS (streamdev)
- M. Boelting (diploma student)



- Misumi switches
- Using GPIO to read state
- EPICS (devgpio)
- Light barrier might be used
- F. Schupp (diploma student)

Germanium

- Radiation tolerant DCS board in development (A. Lucio)
- BBB form factor
- Magnetic field
- Special ethernet jacks needed
- 2 dev boards bought



Summary

- A lot of progress in the control of the primary target
- Ideas converging to solutions :)
- DCS Board for PANGEA (also for the prim. target)
- Sec. target depends on MVD



Thanks for your attention

Backup slides

Backup slides

Backup – PiezoWave

