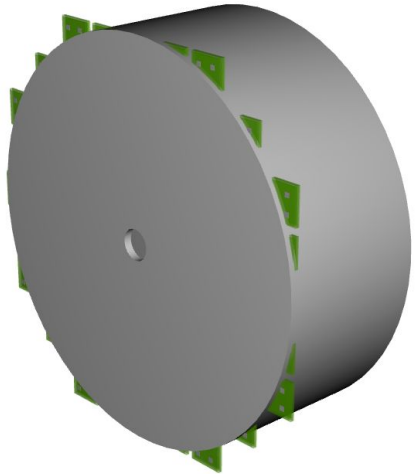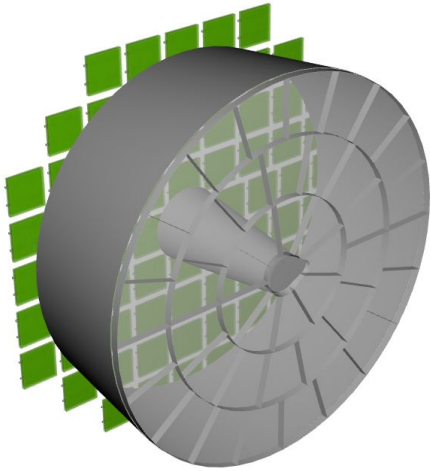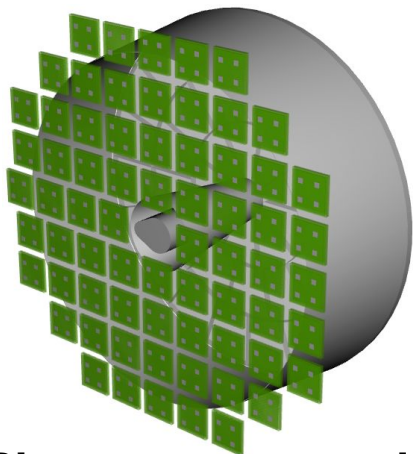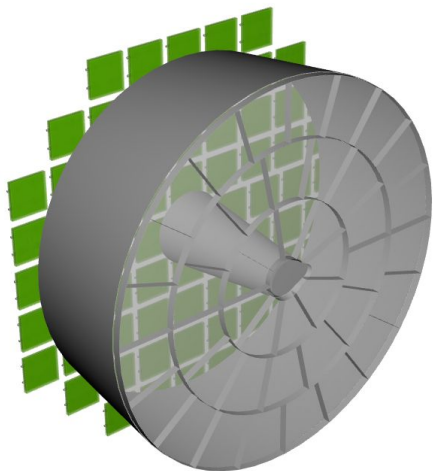# Update on pfRICH DD4HEP Implementation

- Geometry implementation completed

- Issue created

- Pull request (will be created soon)

- Overlap issue for the detector resolved
  - Acrylic layer overlaps with outer mirror cone (resolved)
  - Acrylic layer overlaps with inner mirror cone (resolved)
  - Strange issue, 130 cm outer cylinder overlays with the outer layer of the PMTs? (resolved but double checking)
  - Cooling pipe and plate overlaps with HRPPD air volume (ignored for now)

```
<polycone
  name="world_solid"
  aunit="deg" startphi="0" deltaphi="360" lunit="mm" >
  <zplane rmin="50" rmax="650" z="-250"/>
  <zplane rmin="50" rmax="650" z="250"/>
</polycone>
```
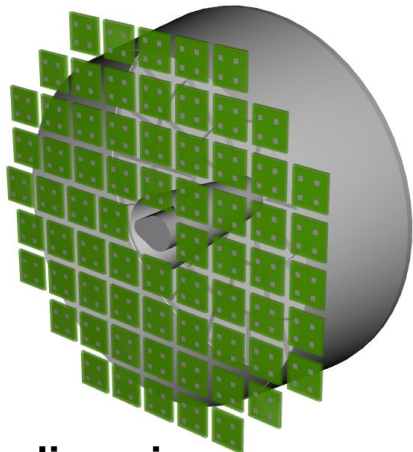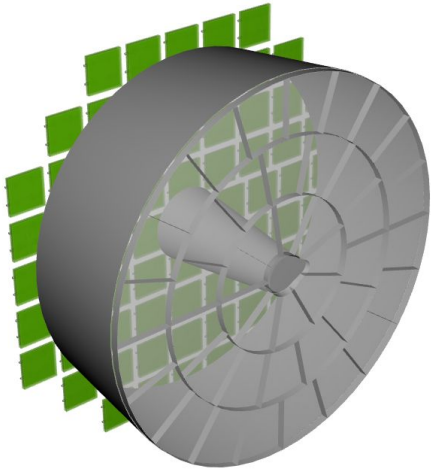
**Imported from GDML file.
Alarming !!**

Next step on pfRICH DD4HEP Implementation

- Double check the dimensions
  - Move the dimension of world definition to the .cc file
  - Sanity check

- Overall overlap check

- Create Pull request

- Cleanup

- Request pull merge

Pipes are removed


```
billlee@lynx-22:~/ePIC_tutorial/epic/compact/pid$ gvim
dirc.xml                      pfrich.gdml
drich.xml                     pfrich_gdml.xm_bad_mod
mrich.gdml                    pfrich_gdml.xml
mrich_gdml.xml                pfrich_gdml.xml_Dec_01_bak
mrich.xml                     pfrich_prototype_gdml.gdml
pdrich_import_test.gdml       pfrich_prototype_gdml.xml
pdrich_import_test_gdml.xml   pfrich.xml
```

Work after merging

- Coding clean up.

- Moving Parameters definition to xml file.

- Readout configuration implementation

- Simulation test.

Cooling pipes are removed