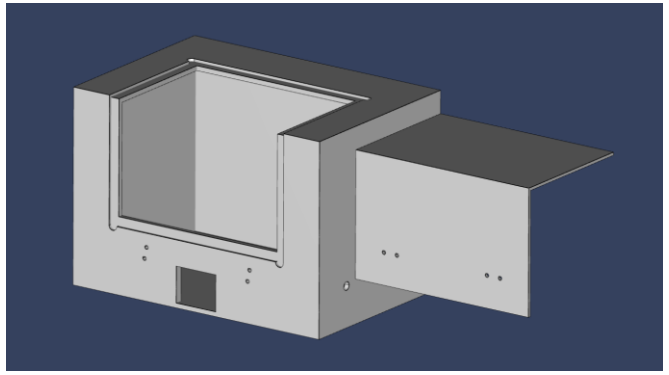
Weekly Report

Shudong WANG

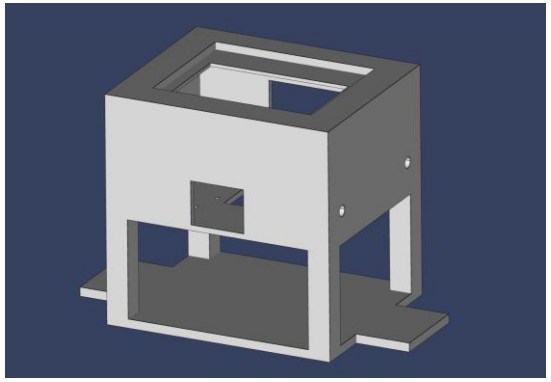
Progresses

- **Designing ColdBox_V2 for ITk sensor irradiation test**

- Sensors need to stay in a cool and dry environment during irradiation test



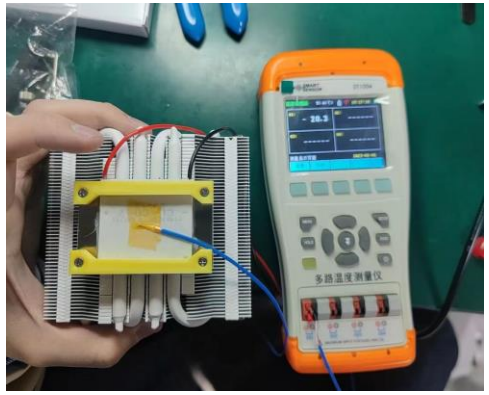
V1



V2

- More compact
- Easy to install it on the test frame
- Use RasPi for remote temperature & humidity monitoring

- More compact cooling components



- Use 3D-printer to print some prototype for concept validation
- Use top down air cooler instead of tower air cooler (more compact)
- Reached -20 °C when RT==25 °C & no-load running

- Need to reach -30 °C
- Plan to use more powerful fan or bigger radiator and use more powerful thermoelectric cooler

Progresses

- **Finished simulation & reconstruction of SM ttbar samples, will email Prof. Zhen Liu to ask for configuration of BSM ttbar samples**

- **Replied part of the IHEP ITk PPB-1 module assembly review**

- **Continue learning basics of deep learning & PyTorch using Dive into Deep Learning (d2l.ai) because I need to modify the network a little bit in my constituent-based boosted V tagger study.**