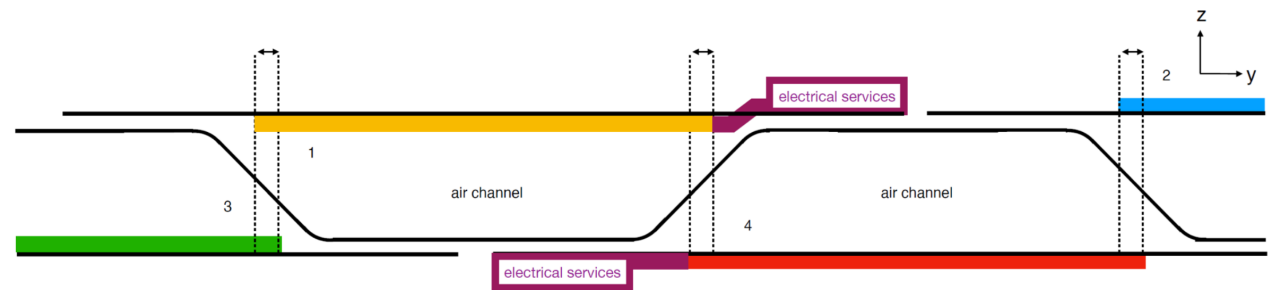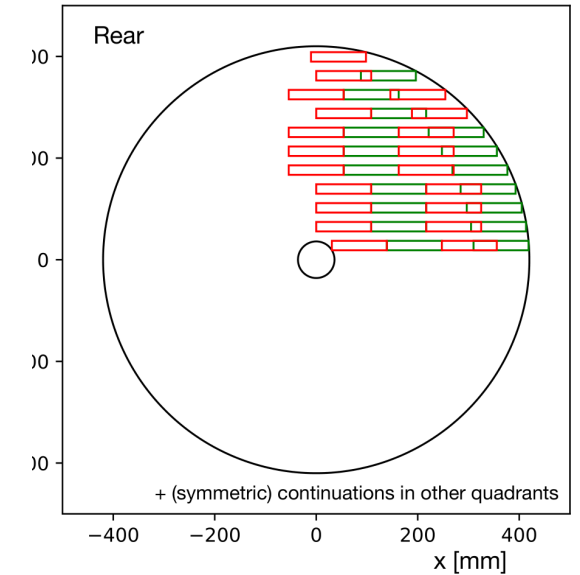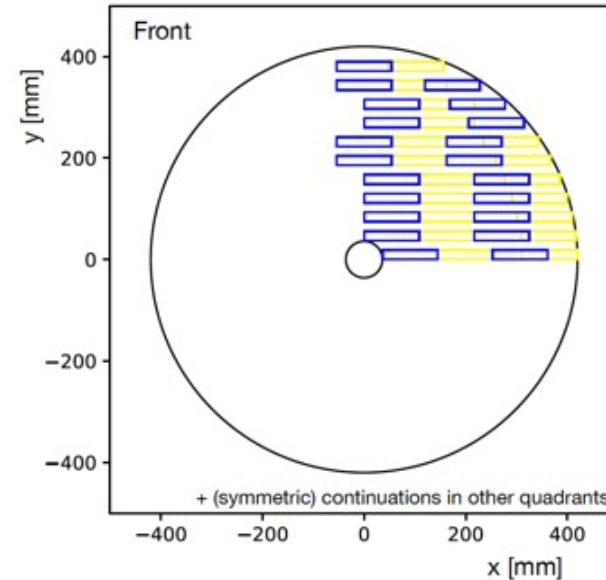# Reminder: Corrugated disc design

- Face sheet constructed out of modules

- Two module types:
  - **Belly up** (sensor facing outward from corrugation)
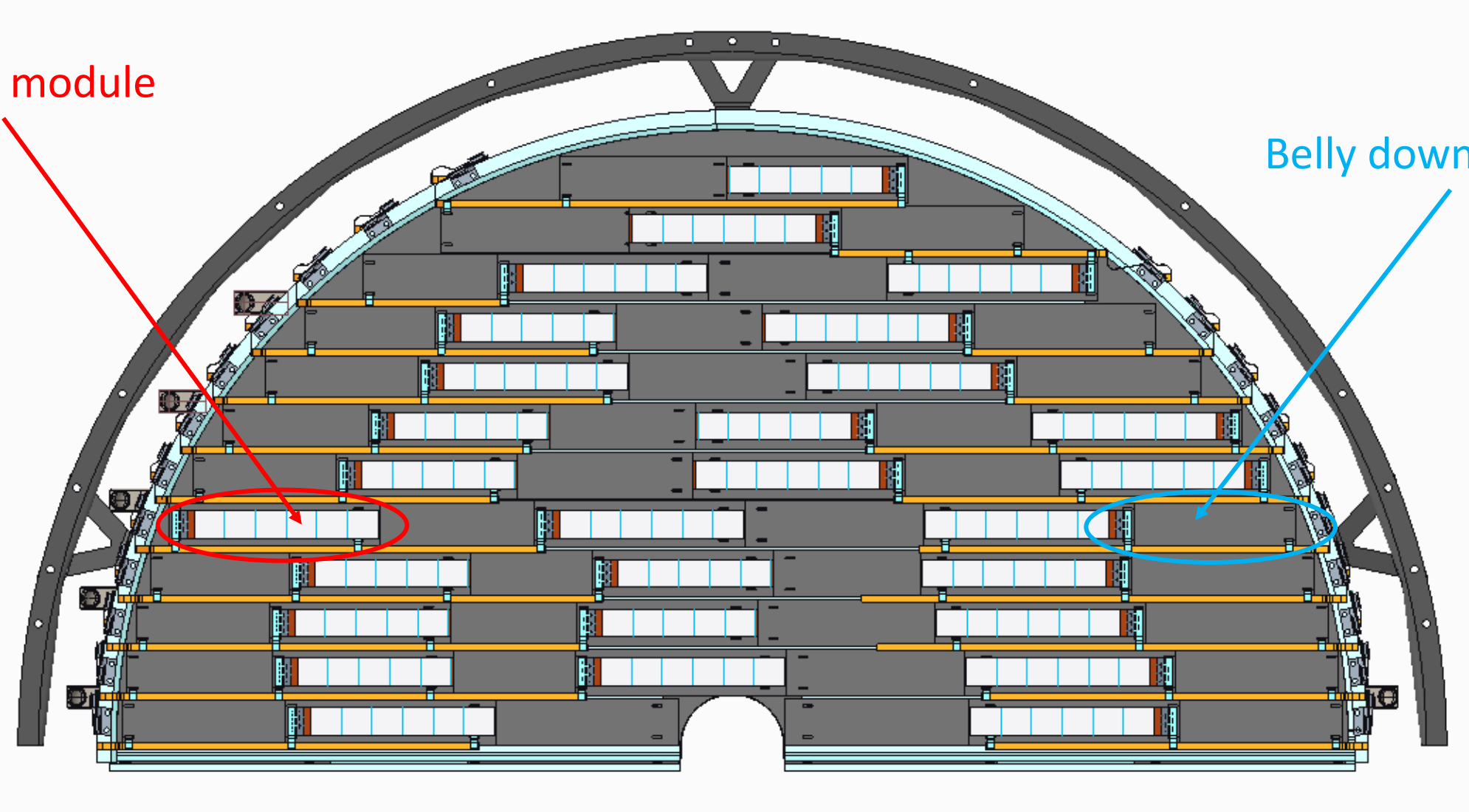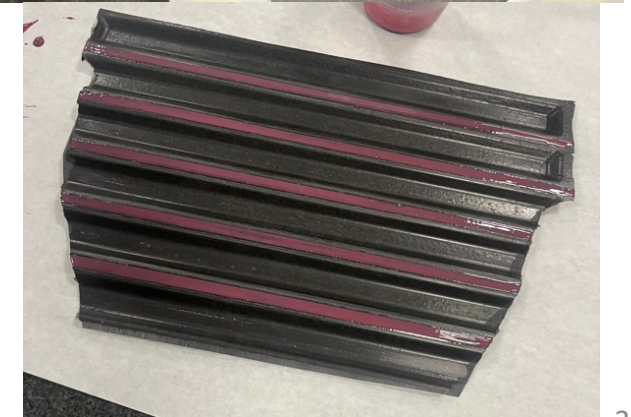 - **Belly down** (sensor facing inward to corrugation)
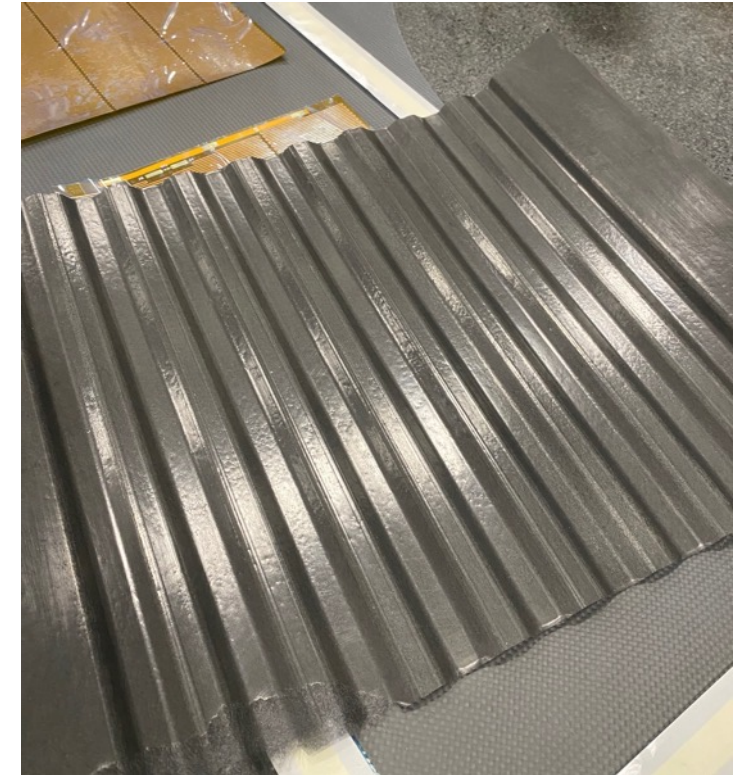
Sensor layout
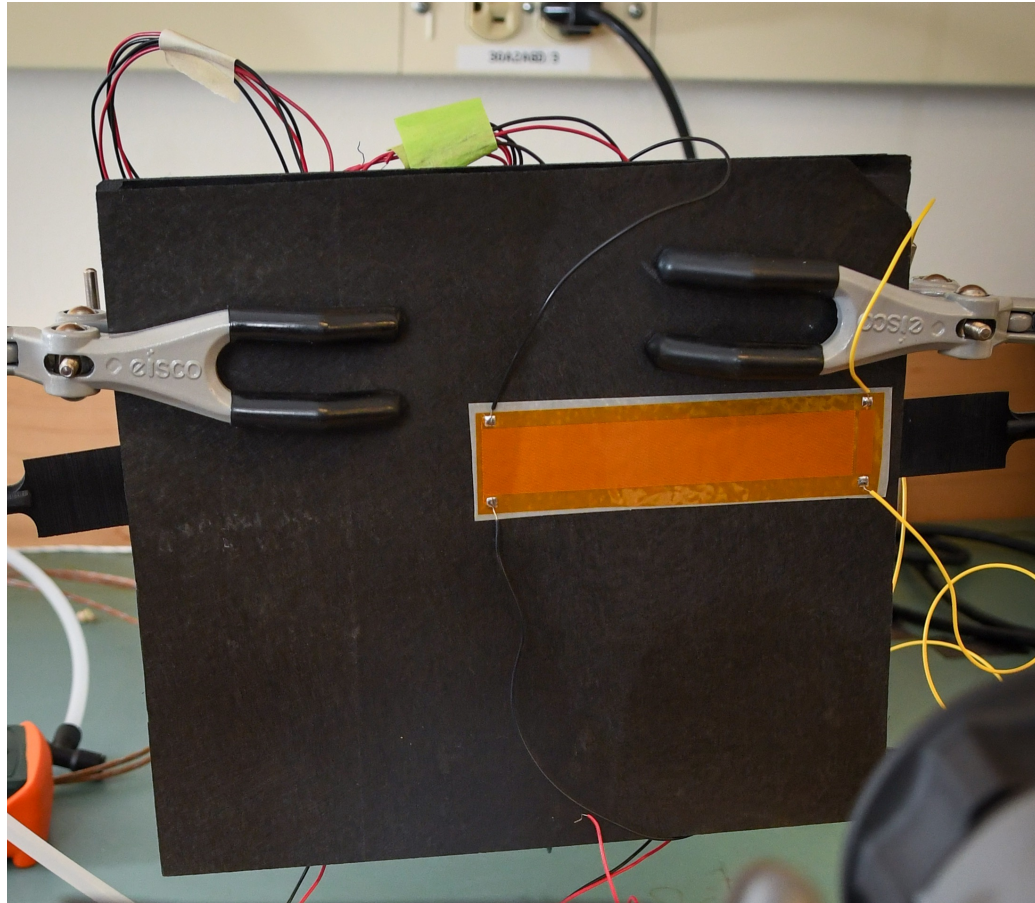
Belly up module

Belly down module

Reminder: First prototype test piece

- 2 layers 34 gsm veil & 5 layers 10 gsm resin

- Face sheet glued with 9309 adhesive in 5 mm strips

- Final size of prototype test piece = 22.4 cm x 20.2 cm

- Final weight of prototype test piece = 22.5 g

- Density = 497 gsm $\rightarrow$ ~0.12% X/X_0

First prototype test piece

Next layups/prototypes

- Using K13 45 gsm unidirectional & 2 gsm glass veil in varying configurations

- Testing layups for both the corrugation & the module face sheets

- Rigid piece used as a top during curing

1. Define satisfactory layup (reasonable X/X0, reproducible)

2. Conduct bend test (with face sheet)

3. Use in FEA and re-evaluate as necessary

4. Vibration test in wind tunnel
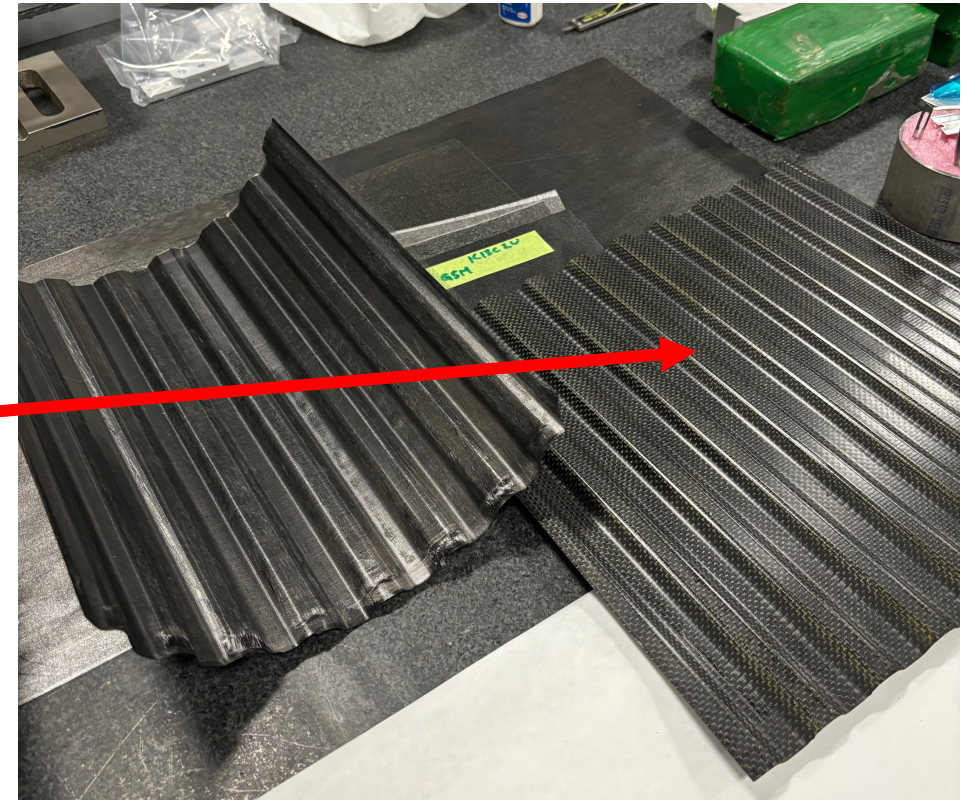
New pieces

- 3 flat pieces for module handling/testing
  - Veil + K13 0
  - Veil + K13 0/90
  - K13 0/90/0
- 4 small corrugated panels ← will undergo bend tests
  - Panel 1: veil + K13 0/90 + boron glue + K9 foam (with glue)
  - Panel 2: veil + K13 0/90 + double-sided adhesive tape + K9 foam (with glue)
  - Panel 3: veil + K13 0 + Hysol 9309.3
  - Panel 4: veil + k13 0 + double-sided adhesive tape