## **Thermal Cycling Staves**

- UK Stave #24 (known s/c on EB, two LHS tapes)
- Stress Tests
  - Thermal cycling
  - Liquid N2 test
- Functionality tests after stress tests.

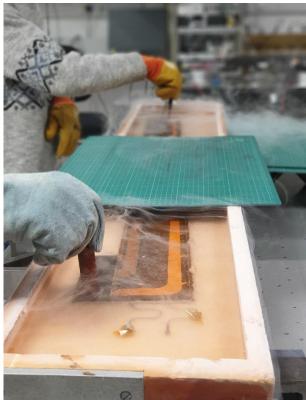
## **Thermal Cycling Staves**

- 100 cycles from -40C to +40C
- Cycle period: 3 hours
- Ramp times: approx. 30 minutes
- Electrical tests performed with robot before and after cycles: no failures.

## Liquid N2 Insertion

- Many cycles of liquid N2 insertion with mini-staves.
  - No electrical failures observed.
- First attempt at liquid N2 insertion failed because plastic box fell apart while pouring in the liquid N2.
- More success with sturdy wooden box!





## Functionality tests after liquid N2

- Careful visual QC
  - No obvious changes
  - Possibly very small increase in delamination at corner (very difficult to see). Not a failure.
- Electrical test with robot performed for both sides: **no failures**.
- Will send stave 24 to QMUL for thermal QC with IR camera.