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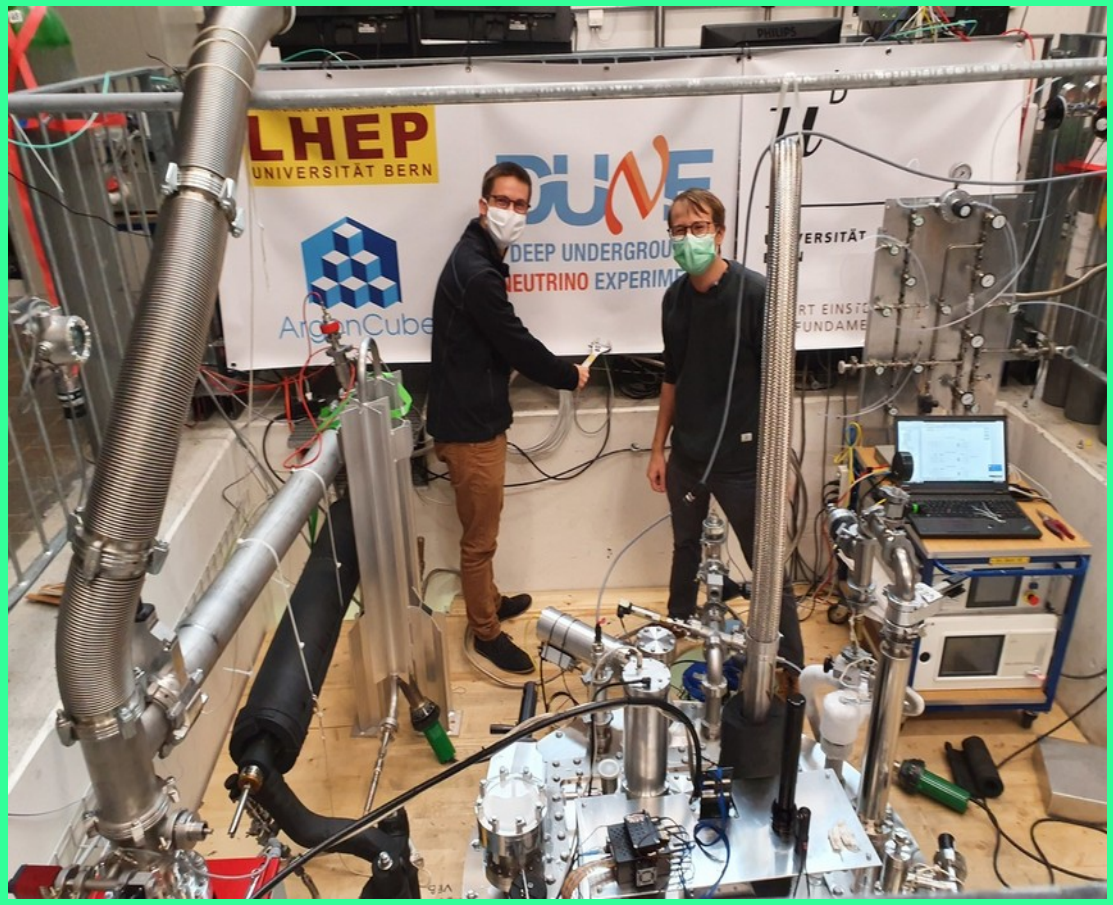
LHEP
UNIVERSITÄT BERN
ArgonCube

SingleModule test run preparation
Status for March 18, 2021



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Module cabling (March 11-12)

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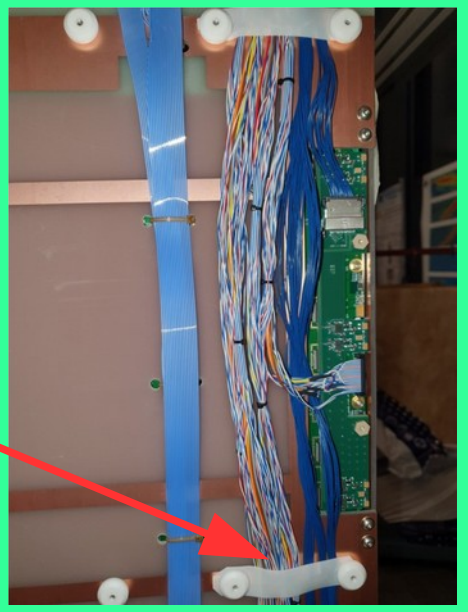
Cables are wixed with copper wire

Covered with teflon tape (not tight!)



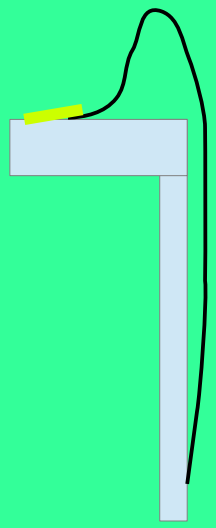
Temporary position in the cryostat (March 12)

The module is leveled and inserted

First connectivity tests - OK

LArPix Hydra configuration - OK

Pedestals and leakage current runs



Mylar foil to assist insertion

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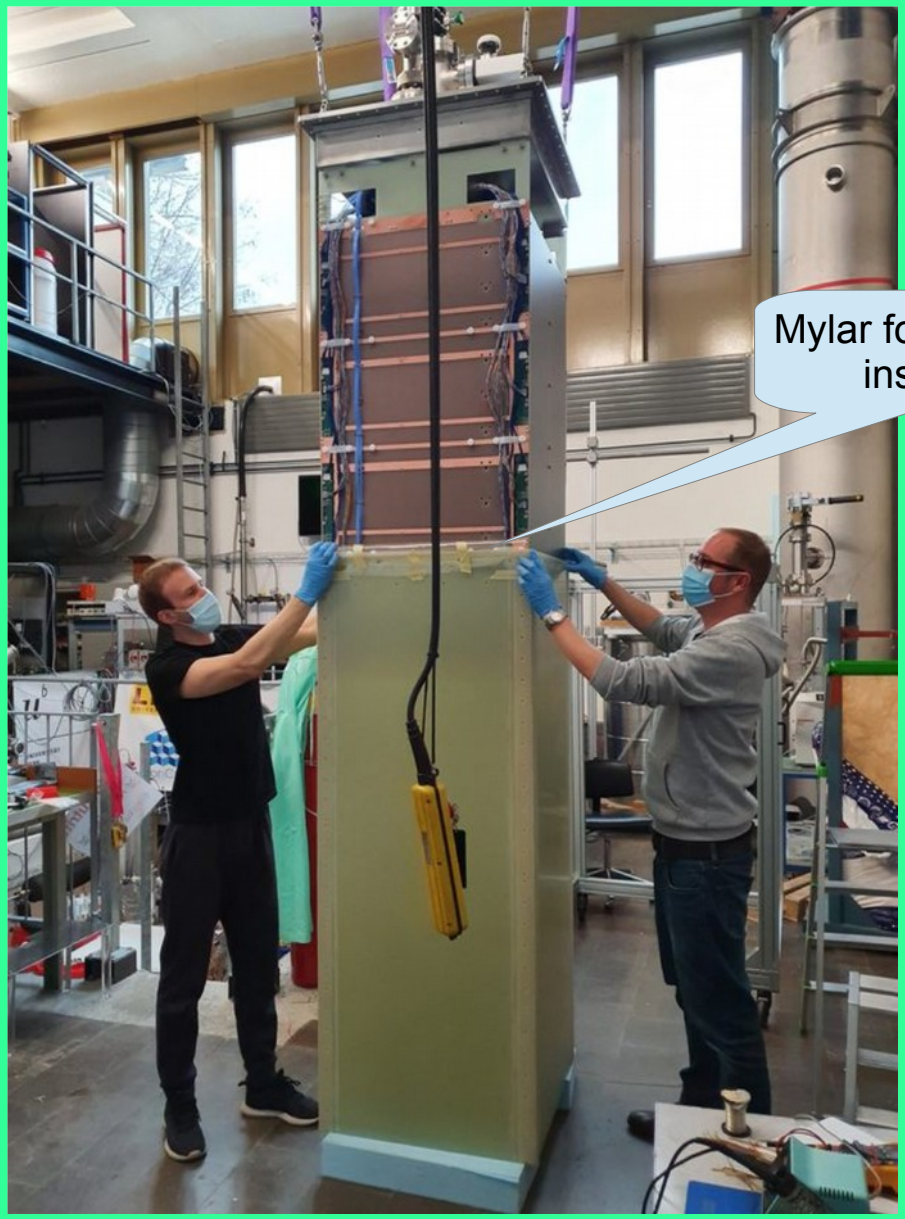
Insertion to the sleeve (March 14)



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Current status
Module insertion (March 17)

The module is installed with no difficulties

Cable connectivity tests are OK

Slow control 100% operative

Powered LArPix tiles

LArPix Hydra networks built

Tests according to the LBNL program are in progress...

Current status
Thermal behavior (March 17-18)

The module is now in a very isolated environment. Tiles are powered and the temperature starts to rise.

We watch this via module slow control equipment.

Slow Ar gas flow (~3 slpm) is established via the cryostat bottom to keep temperatures under control. This morning we increased the flow to ~7 slpm

Temperatures reached max at ~27.5C and flattened.

We continue testing tiles and during breaks - LRS.

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Run schedule (Version March 18)

now - 20 Mar Warm tests of CRS, LRS, Slow Control

20 Mar - 24 Mar evacuation of the detector, leak fixing

24 Mar - 26 Mar cooldown and filling with LAr

26 Mar - start of DAQ, calibrations, first HV @ 0.25 kV/cm

27 Mar - 28 Mar HV @ 0.5 kV/cm, taking cosmic data + special runs (see run plan)

28 Mar HV scan for charge-light anticorrelation study

29 Mar - 1 Apr HV @ 0.5 kV/cm, taking cosmic data + special runs (see run plan)

1 Apr - last data run, start emptying detector

4 Apr - Detector is at room T, 24-h shifts are finished.

Requests for test program are welcome !

Reference documents : https://wiki.dunescience.org/wiki/ND_LAr_Test_Runs