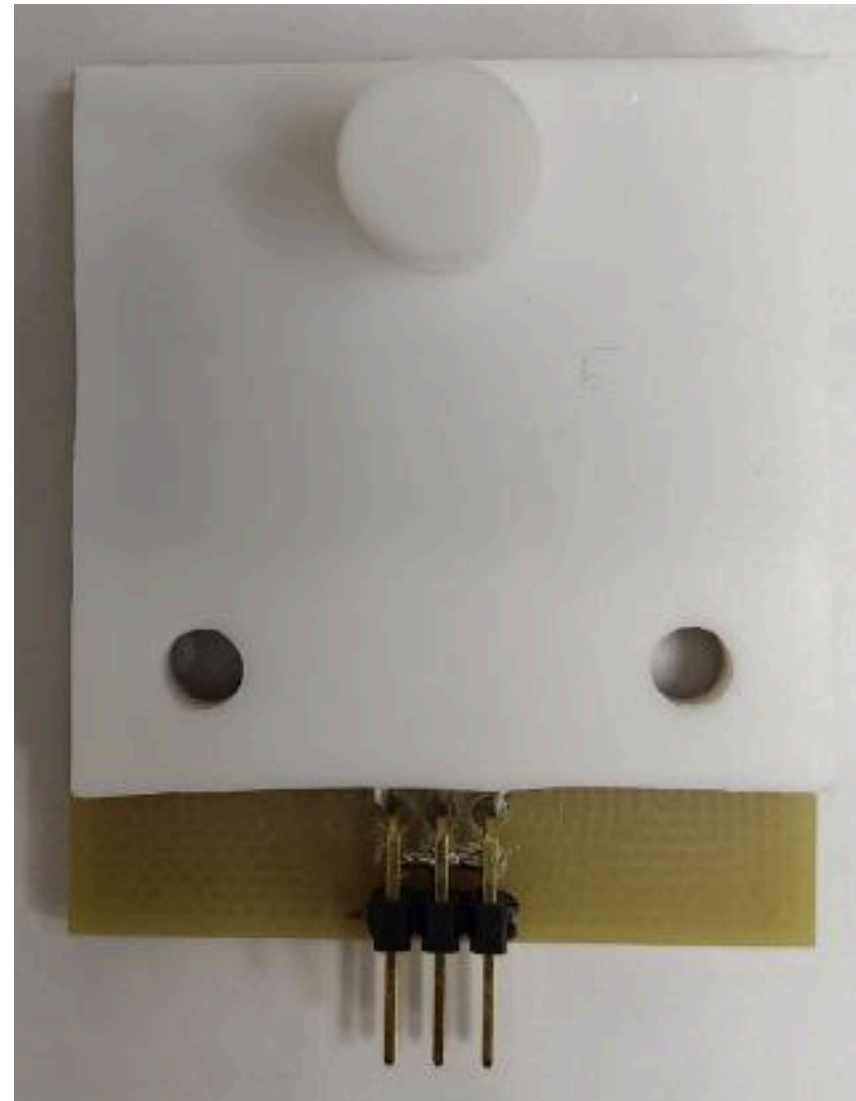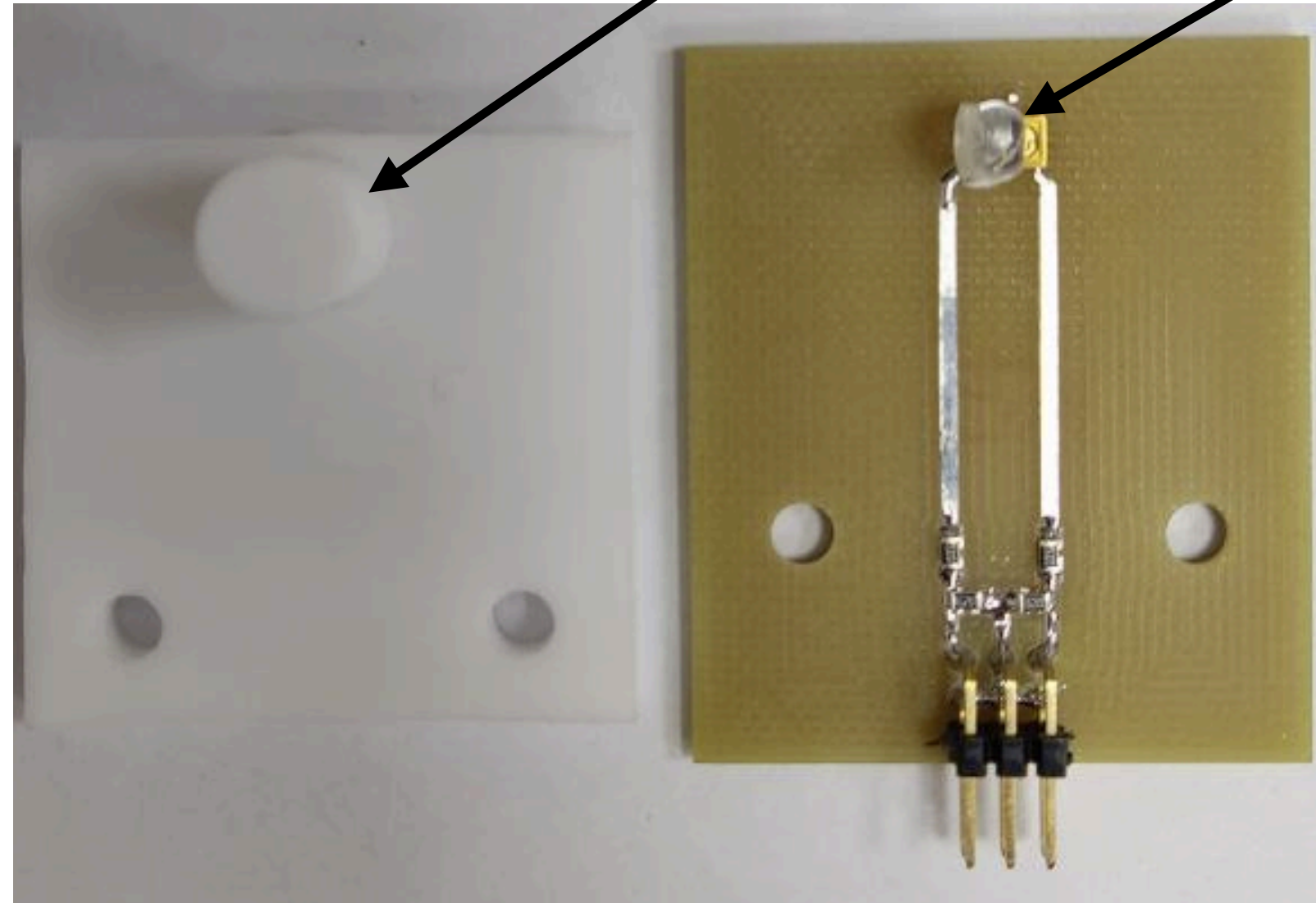# LED system for MOD-1

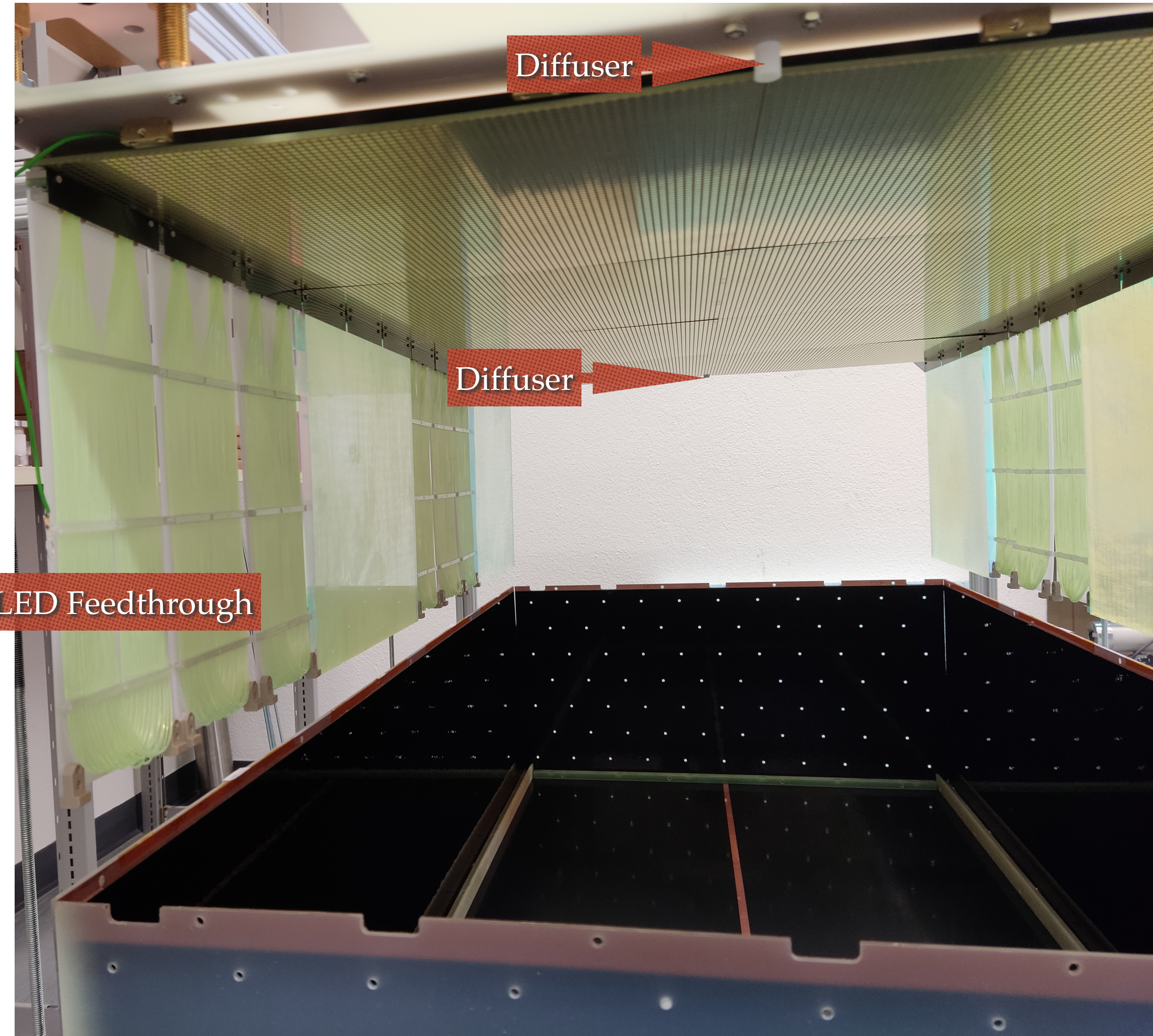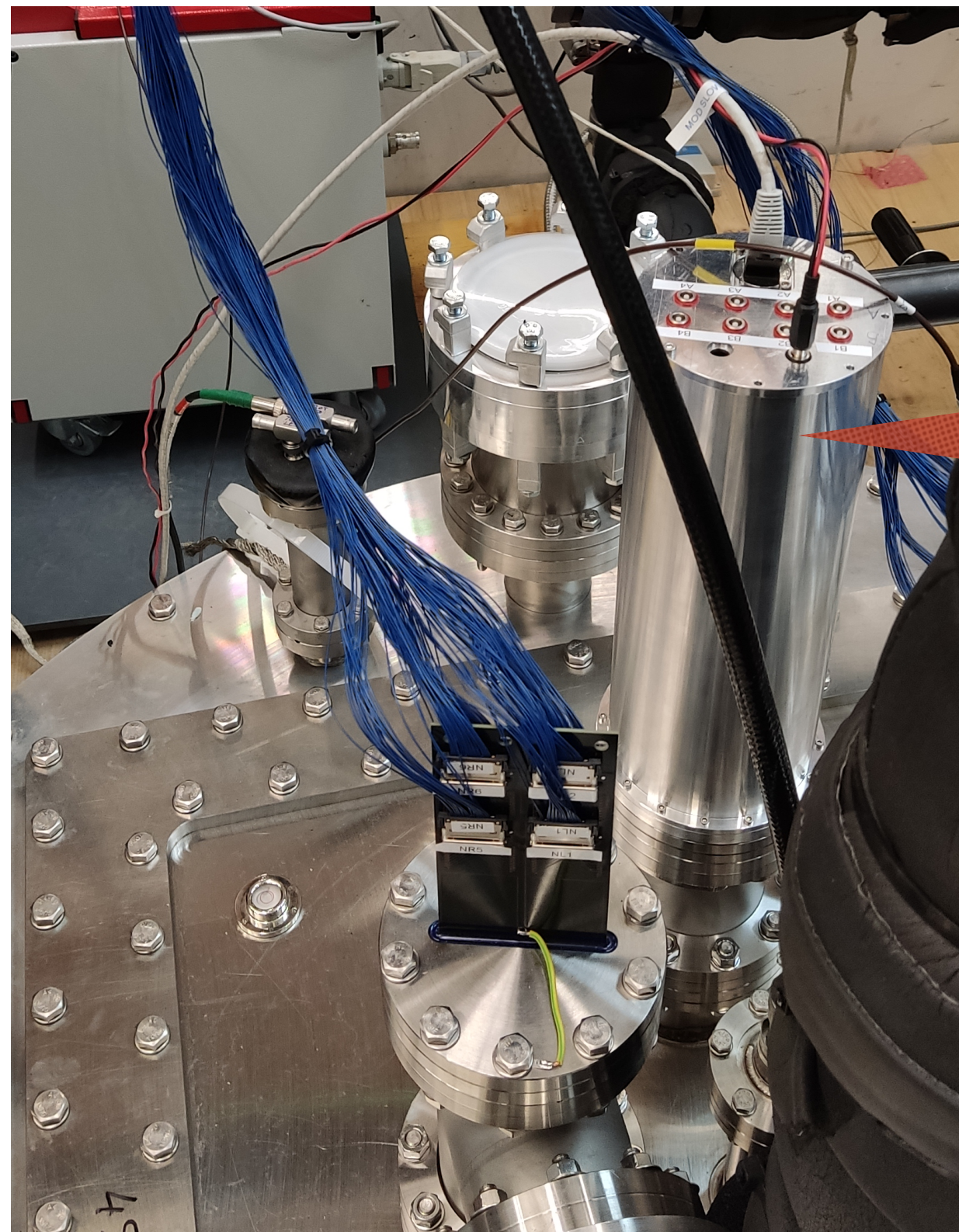LEDs+Diffuser assembly   PTFE Diffuser   UV+blue LED

LED system for MOD-1

- Two LED assemblies per TPC: top and bottom
- 4 LED assemblies per TPC Module
- Diffuser protrudes inside the TPC ~ few mm
- LED feedthrough on top of the TPC - 8 lemo connectors
- Pulse generator for LED running required: ~20ns pulse width, up to 20V amplitude

- **ADC max rate: 1 event = 2k samples * 2 Bytes * 64 ch = 256 kB**
- **Mod0 & Mod1 rate in Bern ≈ 200 Hz => 256kB * 200 ≈ 52 MB from single ADC**
- **For 2x2, 7 ADCs => 52 MB * 7 ≈ 370 MB**

Some specs

- Sync SFP-GE-BX 1000BASE SFP 1490/1310
- Sync SFP-GE-BX 1000BASE SFP 1310/1490
- Network SFP+ transceiver FTLX1471D3BCV-IT 1310 nm by Intel
- Network SFP+ transceiver SFP-10GLR-31 1310 nm by FS
- White rabbit switch WRS-3/18 by Seven Solutions
- GPS grandmaster clock DOWR by Seven Solutions
- Network switch D-Link DXS-1100-16SC