

# HyCal PbWO<sub>4</sub> Crystal Assembly (*Status & Progress*)

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## Topics :



Mechanics



Optics



Electronics

# Mechanical Parts

## a) Available Brass Pieces

▶ JACKING plates	99.5%	(rest is being made)
▶ UPSTREAM plates	100%	
▶ Brass FOIL	100%	

## b) Available G10 Pieces

▶ PMT Capture plates	100%	
▶ OFFSET Tubes	36%	(rest in fabrication in Aspen Machin., N.N.)

# Mechanical Parts

c) Assembled Brass Pieces: *(united plates&foils)*

▶ 750 Sets ready *(out of 1152)*

▶ ~170 need to be remade

▶ Rest (< 50%) in progress ...

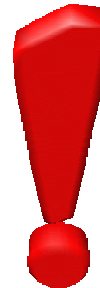
d) Tolerance Alert !!!

● 1000s of holes & threads are remade in assembling area (Brass Plates)

● ~ 300 Plates “reworked” in JLAB Mach.

● ~ more 140 underway

● Aspen Mach. on “edge” ...



# Optics & Geometry

- a) ~1000 Crystals measured on light transmission: accepted
- b) Randomly choosen 15 Crystals measured on geometrical tolerance: accepted
- c) Wrapping technic improved and more R&D studies performed
- d) Further measurements forseen with the help of Students

# Electronics

- a) 180 connectors ready for 1-st PCB (out of 12)
- b) 1/3 of 2x12 PCBs for PMT HV/S available
- c) Vert. PCB
  - a sample of mech. Board is made
  - sample is being fit/checked/corected assembling within the support frame
  - design confirmation: final order next week

Missing issues:

- HV cables
- Trigger cables

- d) ~ 200 PMTs being tested at NC A&T  
(dividers ready since long time ...)