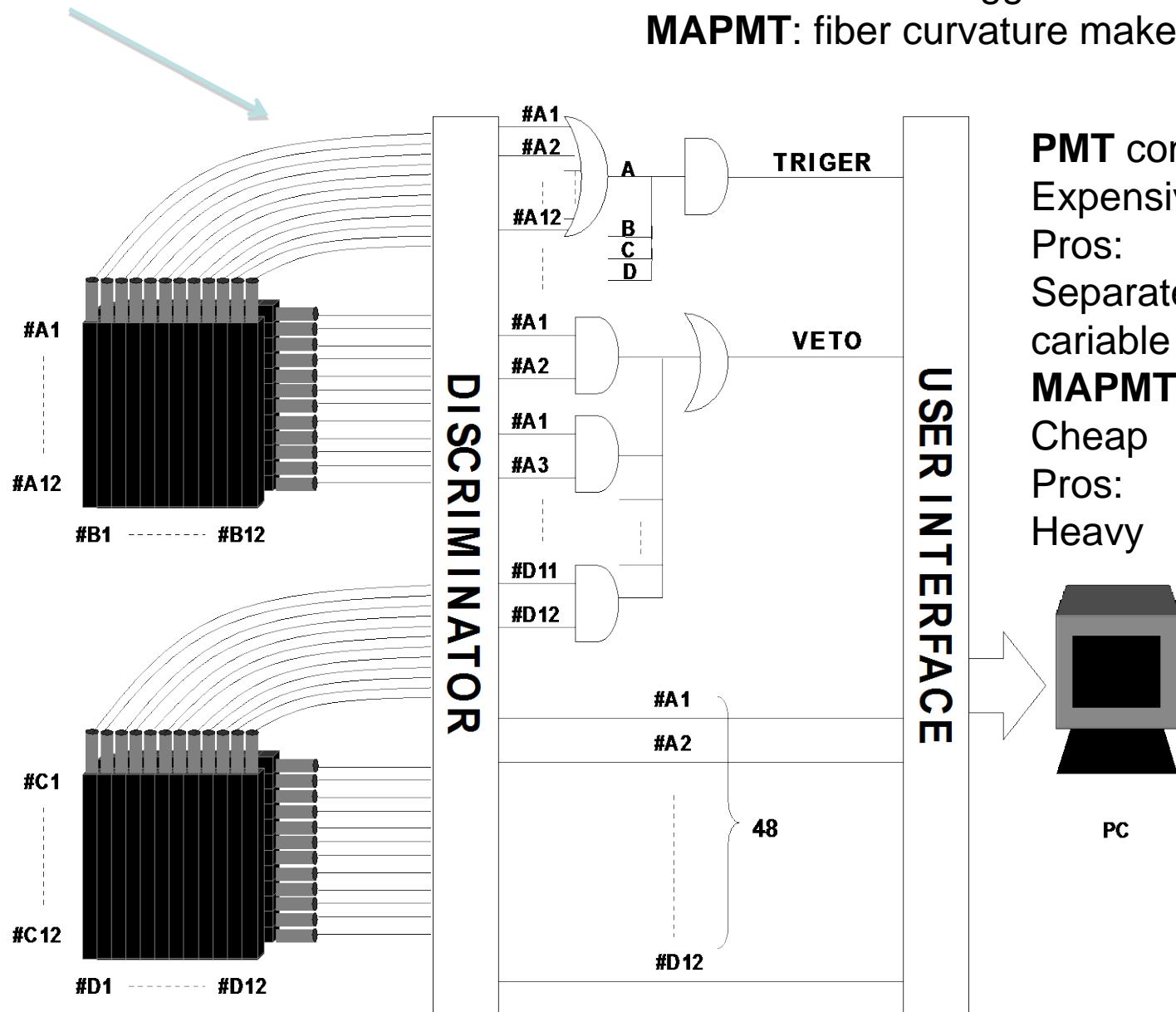# Scintillation based detectors with MAPMTs DAQ

WLS fibers or signal cables

PMT: PMT size and acryl light guide makes detectors bigger
MAPMT: fiber curvature makes them bigger

PMT cons:
Expensive
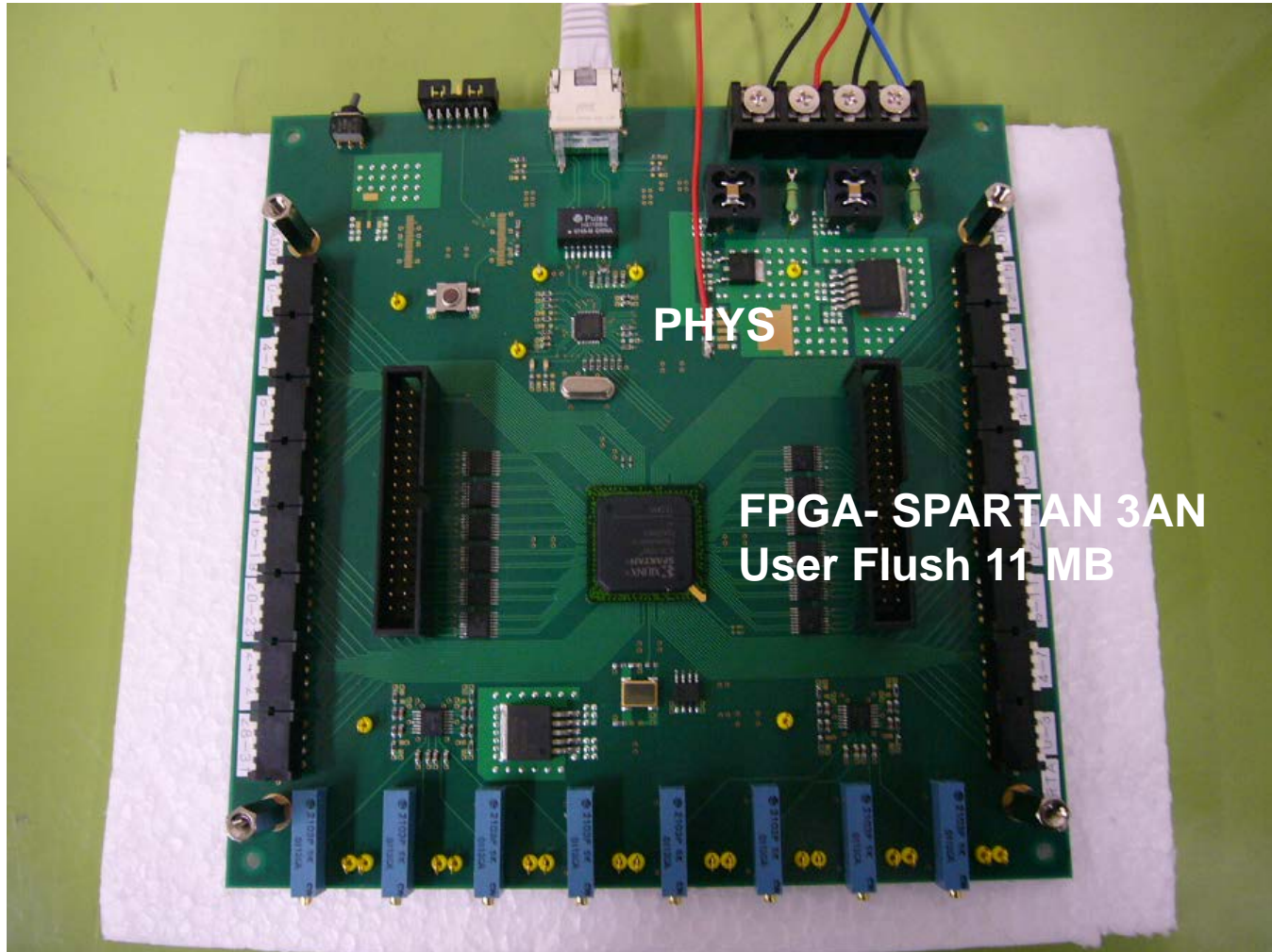Pros:
Separately
cariable
MAPMT cons:
Cheap
Pros:
Heavy

#A1
#A2
#A12
A
B
C
D
TRIGER

#A1
#A2
VETO

#A1
#A3

#D11
#D12

#A1
#A2

48

#D12

#A1
#A12
#B1 --------- #B12

#C1
#C12
#D1 --------- #D12

DISCRIMINATOR

USER INTERFACE

PC

regular 2 inch PMTs or MA PMTs

Muon readout module

PHYS

FPGA- SPARTAN 3AN
User Flush 11 MB

Space and power effective readout module

Data Transfer

ERI monitor

Power consumption

- 300mW for FPGA
- 200mW for comparator
- Regulator → 3.3 V -> 5.0 V 2000 mW
- Regulator → 100 V -> 5 V 2000 mW

TOTAL 4.5 W

Highly efficient regulators will make it less than 900 mW In total consumption.

In 2012 it will be made.