

# COSMIC BOX: Boxing the Dark

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MUSEO  
STORICO DELLA FISICA  
E  
CENTRO  
STUDI E RICERCHE  
ENRICO FERMI

# OUR STARTING POINT



Cosmic ray from the space



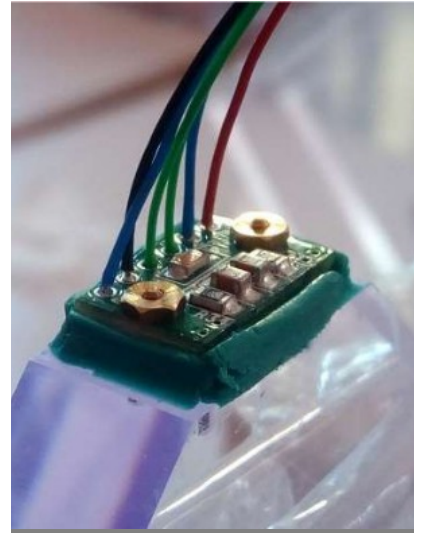
It would become the  
result of our work.

# First step: assembly operation

MYLAR



PHOTODIODE



# Coating and packaging



Cut of the Mylar



Coating with duct tape



Cardboard cover for the photodiode's angle

- Smoothing
- Cutting
- Cleaning, polishing
- Choosing the more reflective side

**We had to follow extremely precise measures**

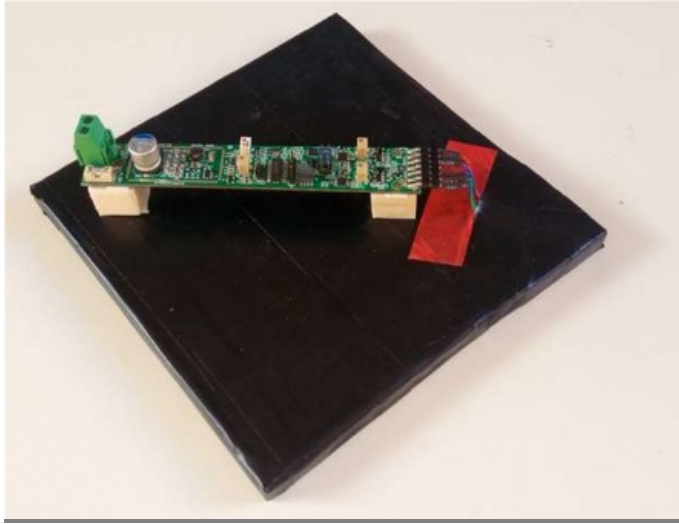
**(It was not that easy)**



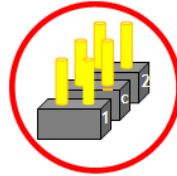
## Second step: Electronic parts



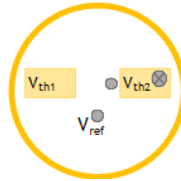
# Front end circuit boards



Selection Pin for photodiode counter

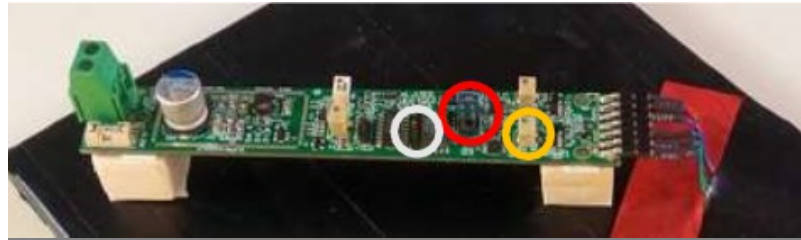


Selection of photodiode of interest

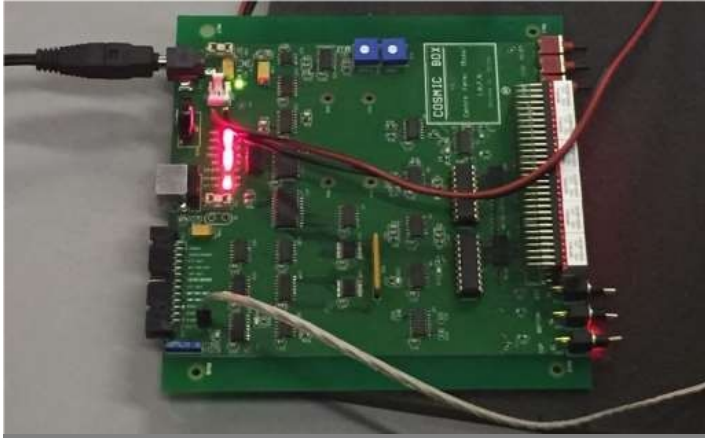


Trimmer for the set of the treshold of the photodiode

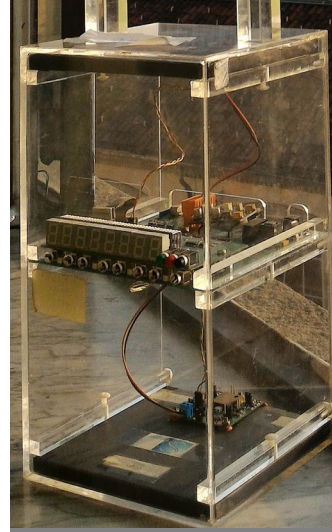
Supply voltage of the photodiode: 31 V.



# Trigger board



2



20 cm

Vertically  
coincidence Test

1



= 0

Horizontally coincidence Test  
The result must be void

# The final assembly





# A day with D'Azeglio Institute

A day of collaboration, interviews and report.



# Thank you for your attention



? Time for questions ?