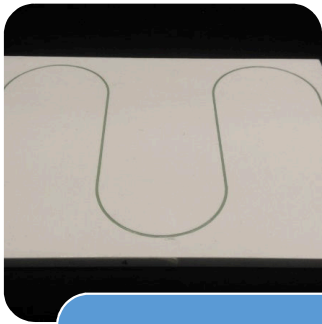


# **CERN Hackathon 2015**

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# 1<sup>st</sup> CosmicPi Prototype



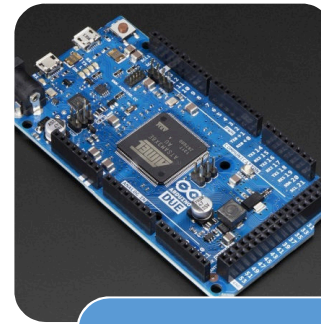
## Detector module

- scintillator tile
- two SiPM
- light tight enclosure



## Analog Processing

- trigger generation
- signal amplification
- signal shaping
- Interface for sensors
- SiPM high voltage power supply



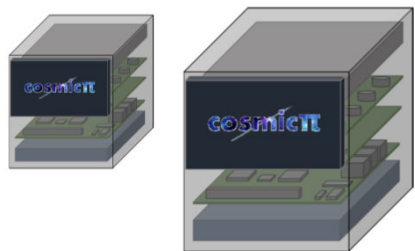
## Digital Processing

- analog signal digitization
- sensors readout
- data organization
- power supply control
- Communication and data display via touchscreen

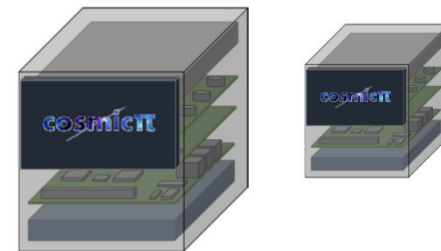


## Data Processing

- data acquisition
- data storage
- data analysis
- communication with central server or local computer
- data visualization



# 1<sup>st</sup> CosmicPi Prototype



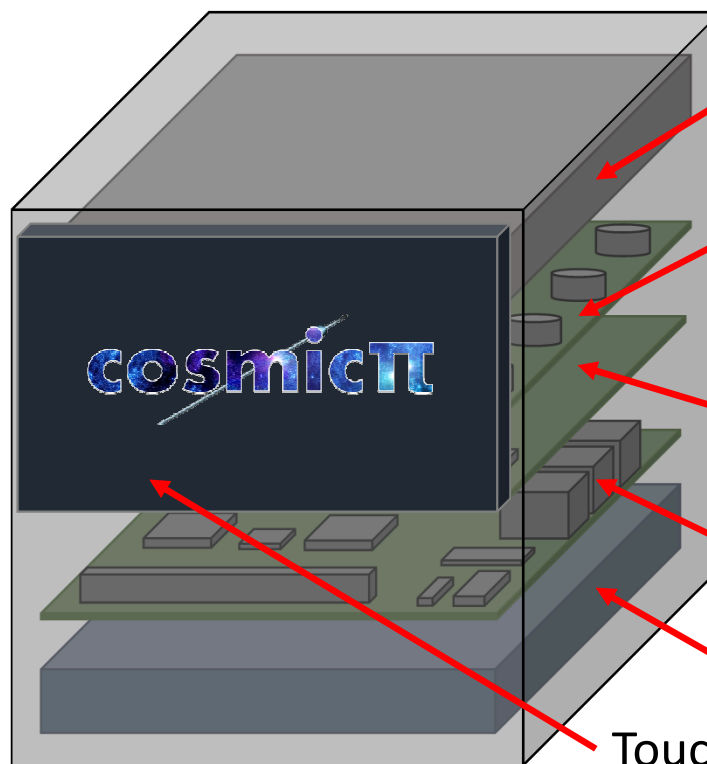
Particle detector (dosimeter)

Weather station

Educational Kit to teach:

- Physics
- Modern electronics
- Programming
- Software

For anybody who interested  
in science



Scintillator detector

Analog signal processing  
electronics and sensors

Arduino

RaspberryPi

Rechargeable battery

Touch screen