



İTÜ

UNISON-TR ACTIVITIES

(2nd UNISON-Global meeting)

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ITU - Space System Design and Test Laboratory

- Foundation 2007
- Satellites
 - ITUpSAT-1
 - 3USAT
- Interns
 - Over 25 (4weeks-3months)
- First step for Graduates
 - Jobs
 - Academic Life
- First Turkish Civilian Rocket Launch
- First Turkish CubeSat
- First Turkish Communication CubeSat
- Education
 - Courses
 - CanSat
 - Tests



- Dynamic Team
 - Master - Apprantice
- Hands on Education
 - Design
 - Manucfaturing
 - Test
 - Documentation
- Multi diciplinary projects
 - Electrical
 - Mechanical
 - Aeronautical
- Team Work

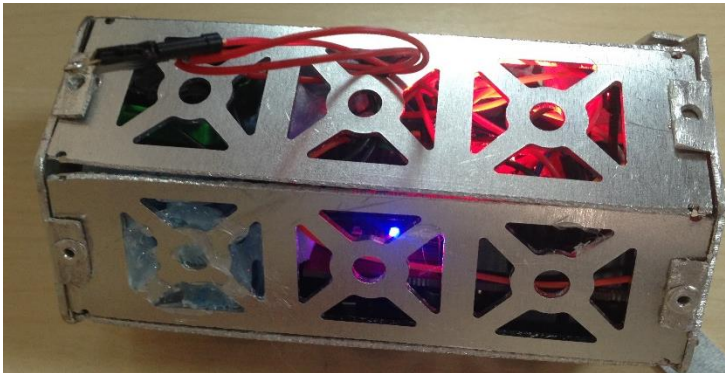


INTERNATIONAL RELATIONS

- International Projects
 - QB50
 - SUDAN (cubesat design and test training)
 - GERMANY - ITALY (HORIZON2020)
 - CZECH REPUBLIC (TUBITAK)
- Interns from different countries
 - SUDAN
 - FRANCE
 - TUNISIA



- CanSat Leader Training workshop
 - 16-27 June, 2014.
 - Rocket Launch (500m)
 - 15 participants
 - In CanSat workshop
 - Design
 - Microcontrollers & Sensors
 - Data Handling & Communication

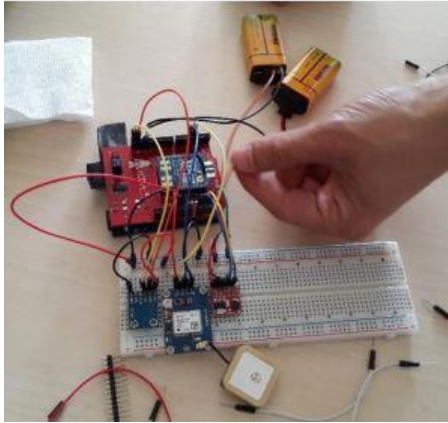
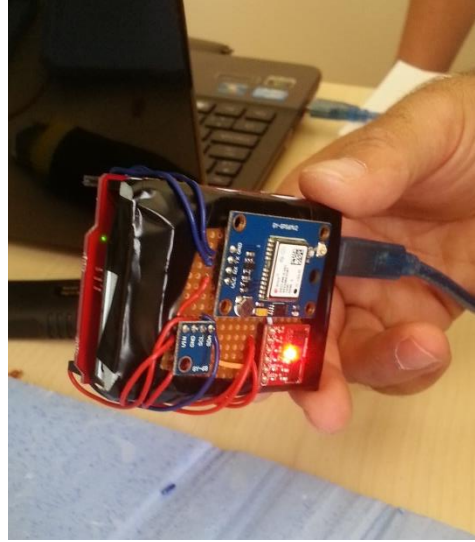


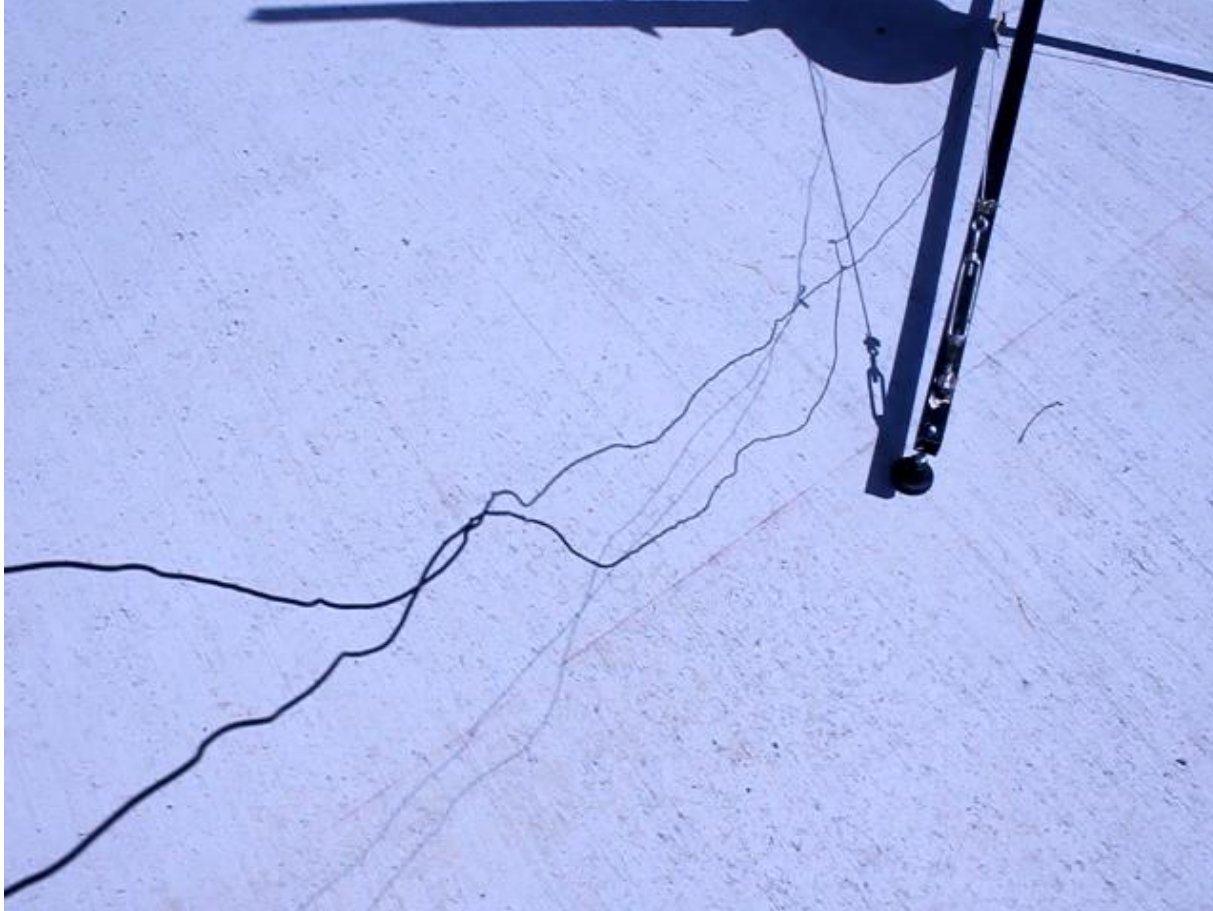
Schedule of course



16. June. 2014	Cansat Introduction, Mission Definition and Sensors
17. June. 2014	Mission Profile and System Development, Cansat Hardware and Software Development
18. June. 2014	Microcontroller Introduction
19. June. 2014	Introduction to GPS Programming
20. June. 2014	Ground Station Development
23. June. 2014	Structure Design, Descent and Landing System Design
24. June. 2014	Integration and Testing, CanSat Launch Rockets
25. June. 2014	Continuation of Design and Manufacturing by Teams CanSat
26. June. 2014	Pre- Launch Testing and System Controls
27. June. 2014	Launch and Mission Success Evaluation

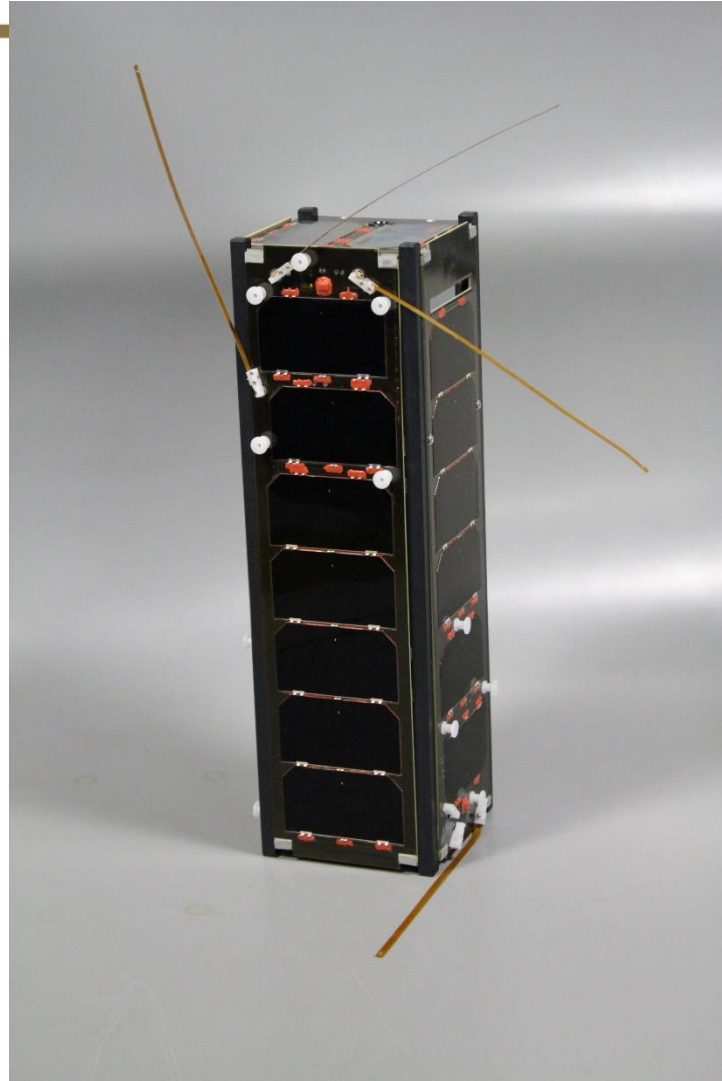




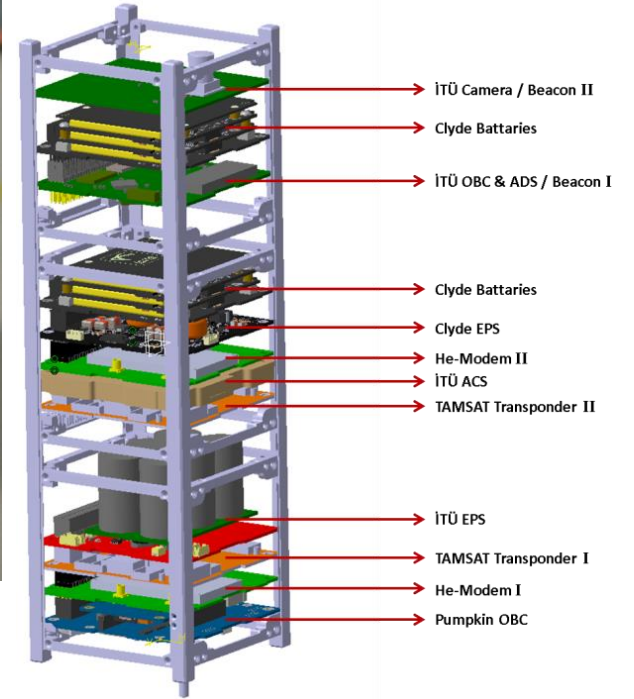
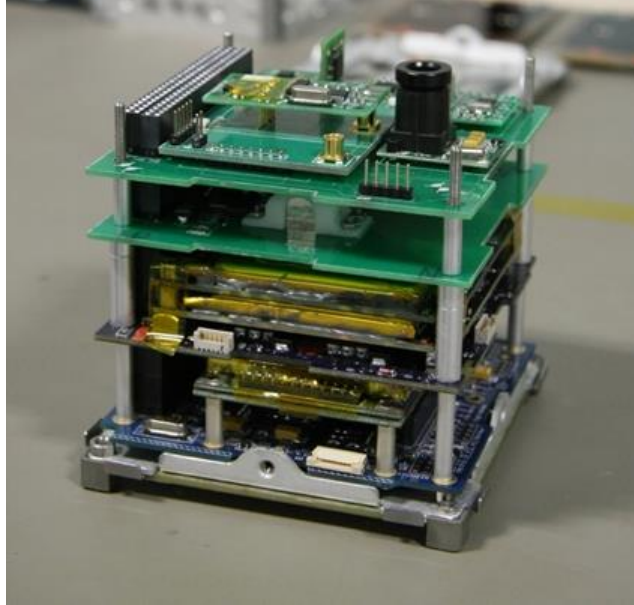
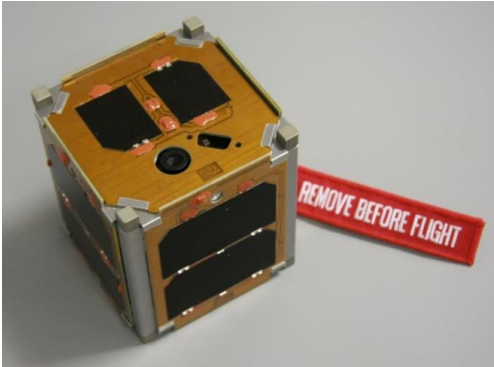
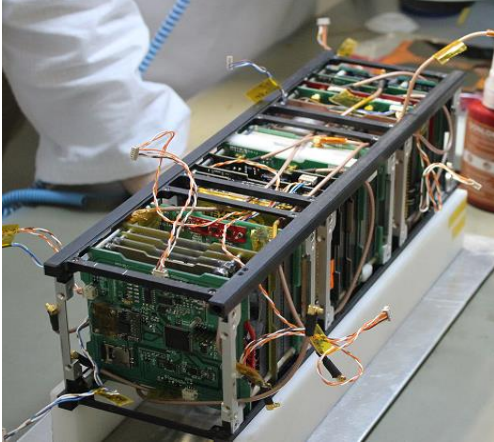


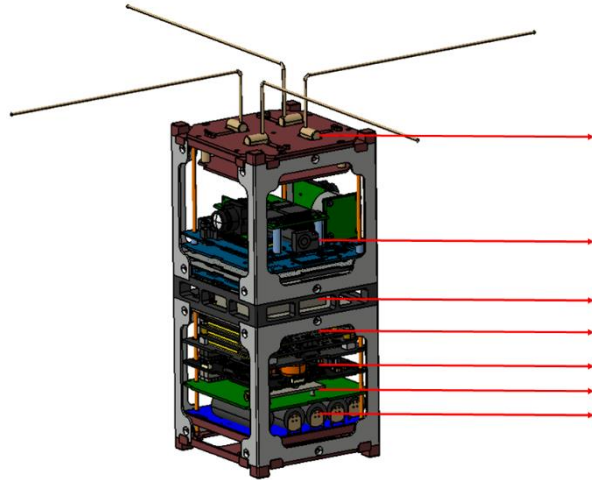
PROJECTS

- ITUpSAT – 1
- 3USAT
- 3USAT – 2
- BeEaglesat
- HAVELSAT
- X-RAY Detector









MNLP Science Unit

ADCS

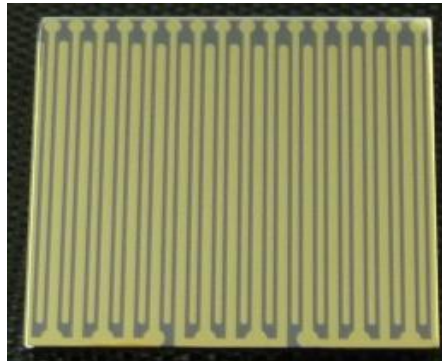
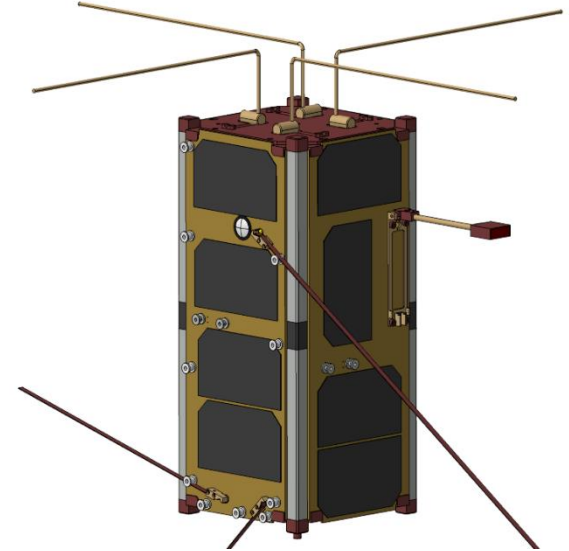
OBC-Modem

Battery

EPS

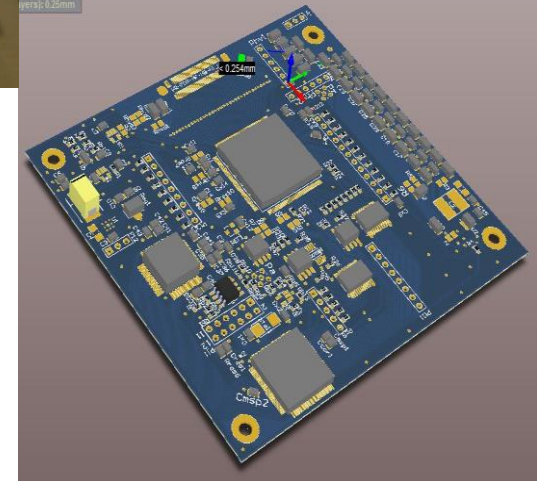
Beacon-Mechanism Control

X-Ray

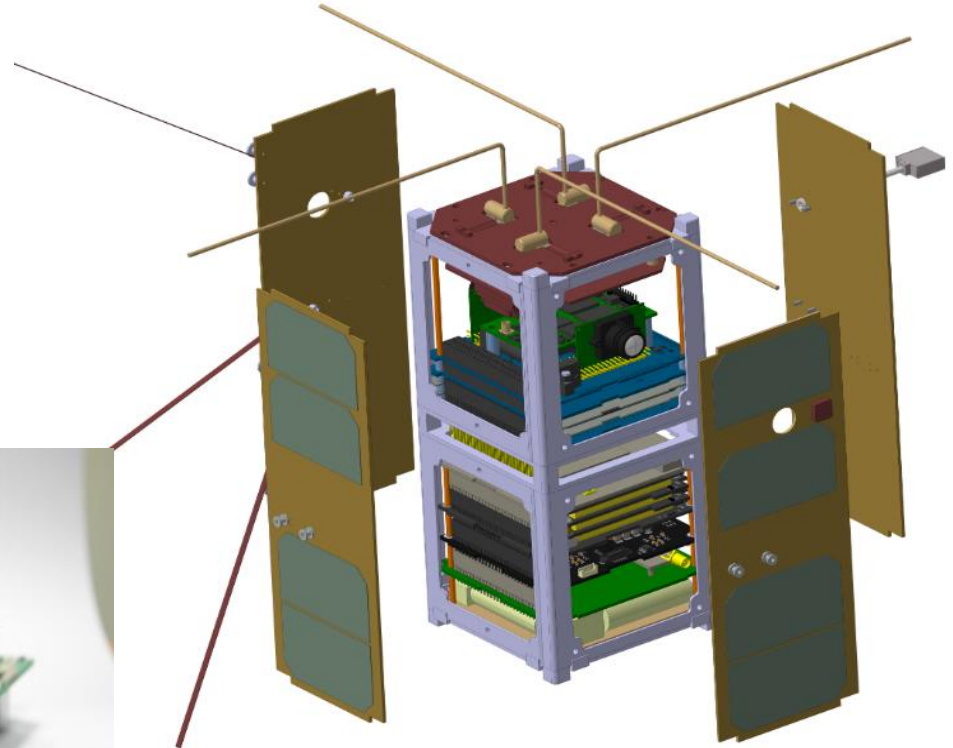
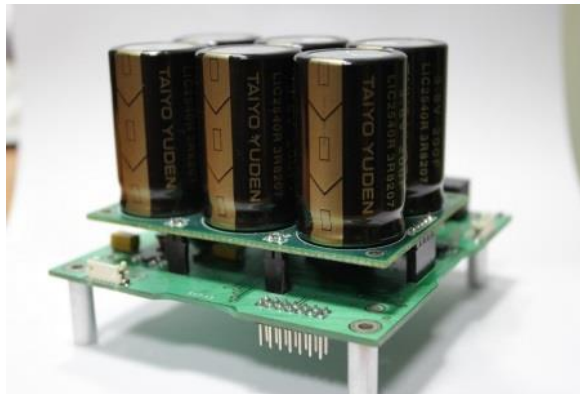


Capabilities

- Mechanical Design
- Electronic Design
- Simulations
- Analysis
- Manufacturing
- Testing
 - TVAC
 - EMI-EMC
 - Vibration
- Integration
- Clean Room
- Ground Station
 - VHF/UHF



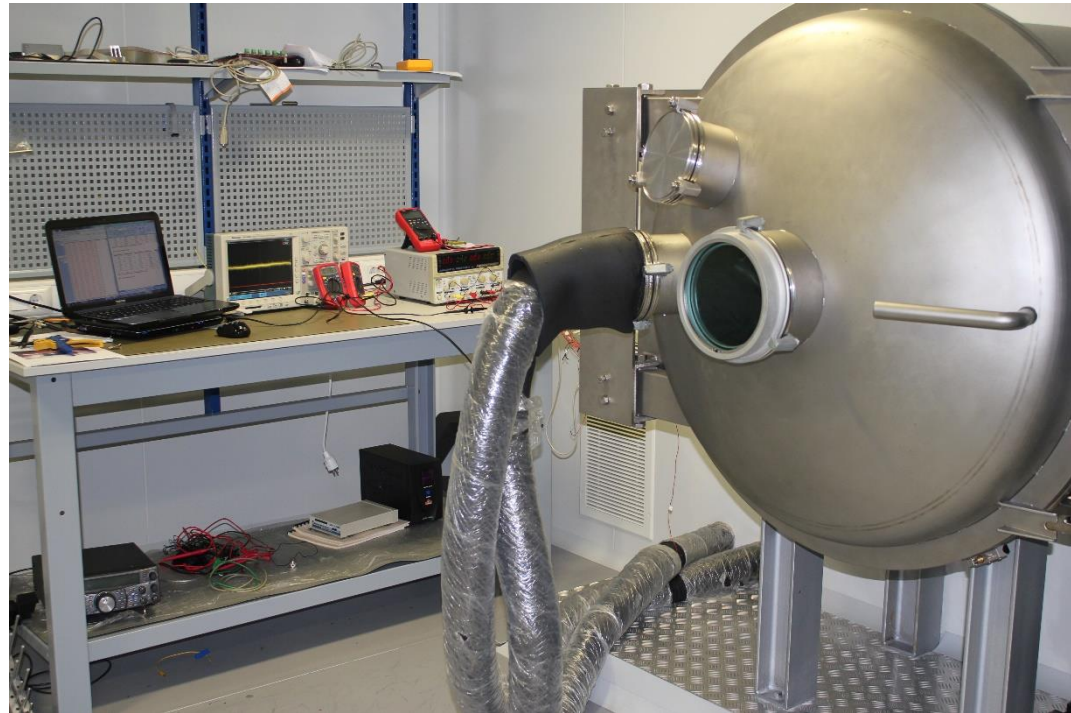
Products

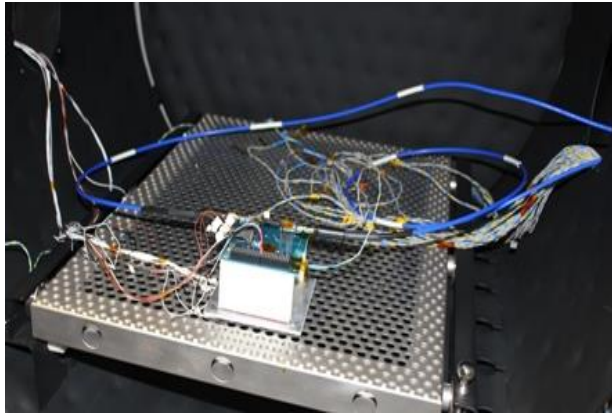
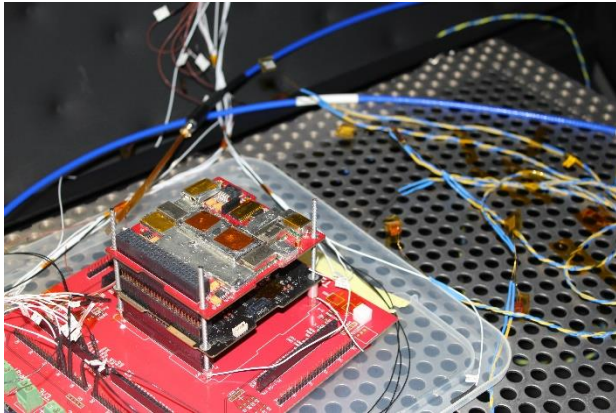
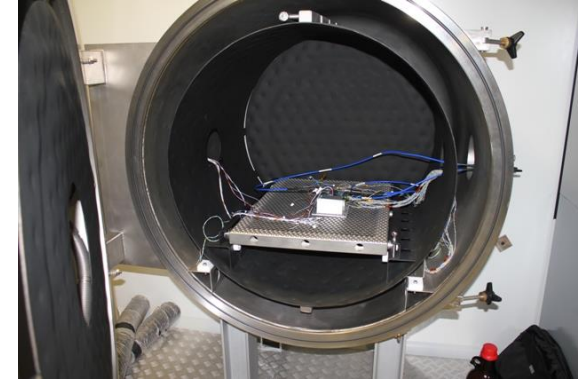
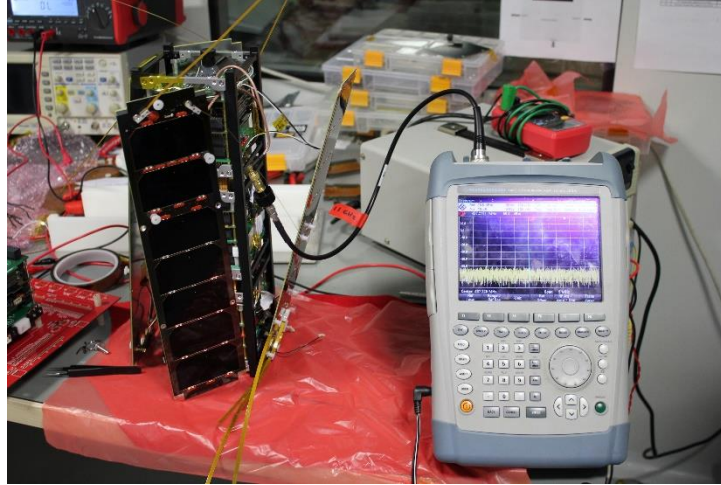


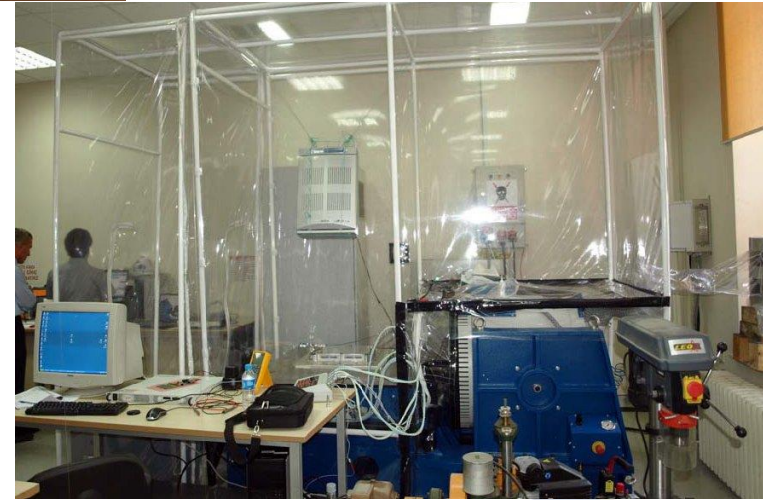
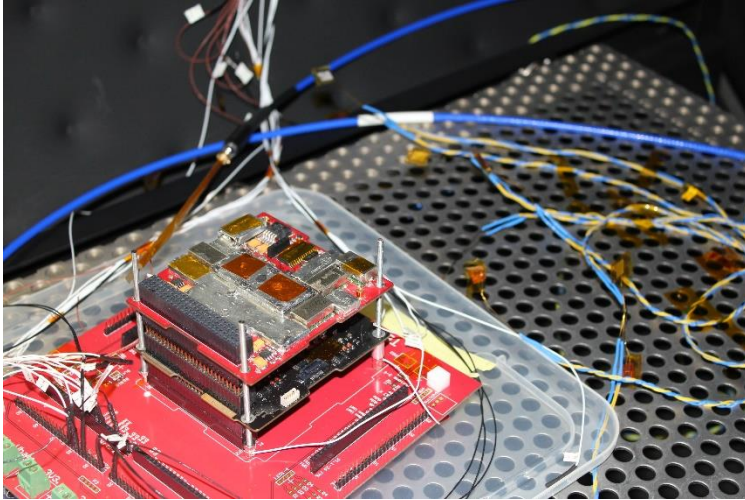
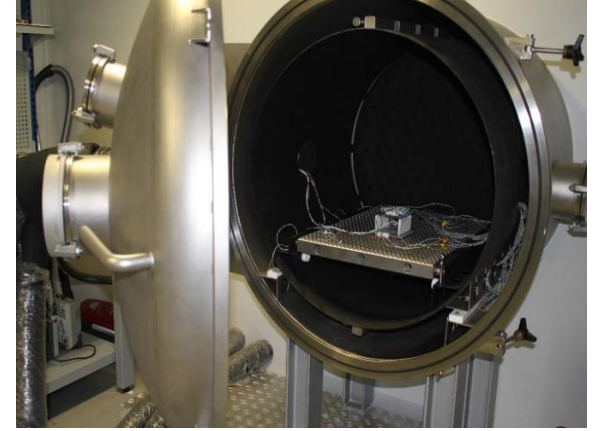
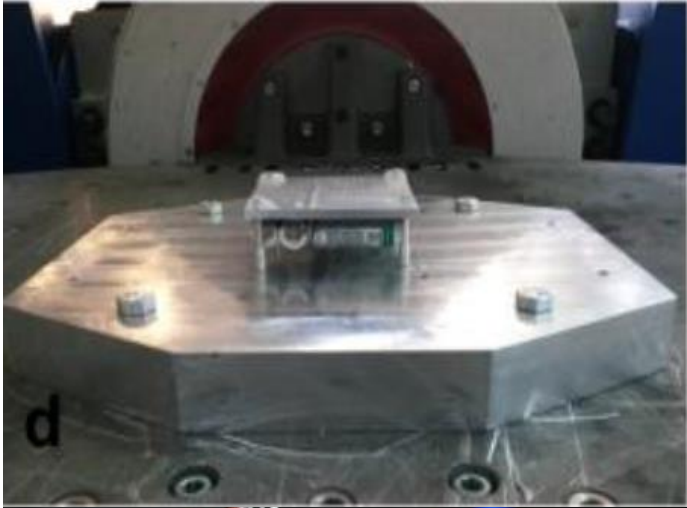


TESTS

- 20+ Systems
- 50+ TVAC
 - Minimum 30 Hours
 - Maximum 118 Hours
- 20+ Vibration and Shock
 - Minimum 5 Hours
 - Maximum 13 Hours
- 10+ EMI – EMC
 - Minimum 3 Hours
 - Maximum 10 Hours







Thank you for your attention

