SPACE
Groupe activités spatiales

Hes·so
Haute Ecole Spécialisée
de Suisse occidentale

Fachhochschule Westschweiz
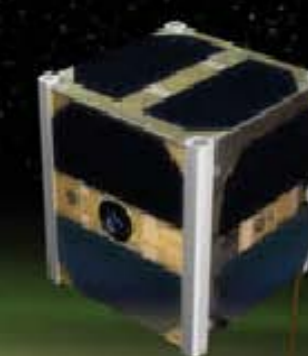
University of Applied Sciences
Western Switzerland
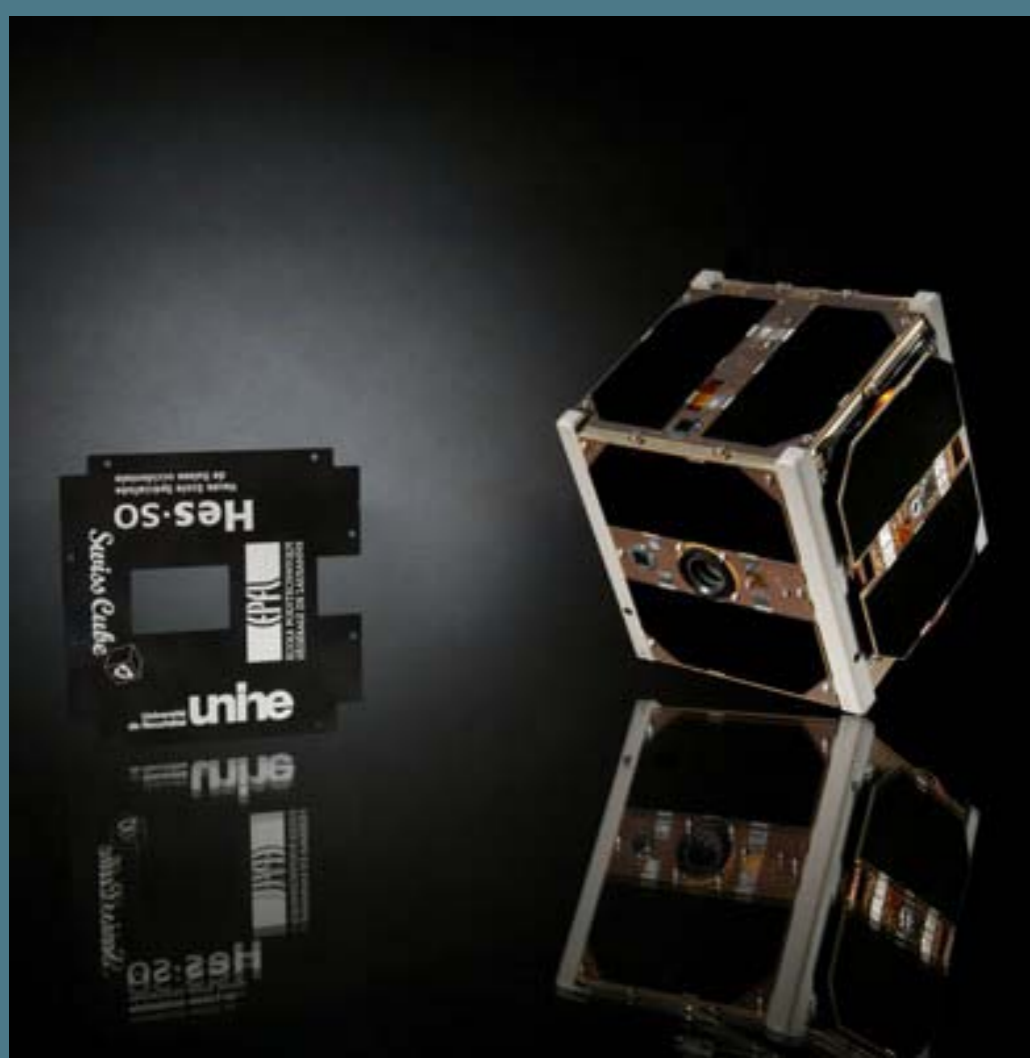
Swiss Cube

In partnership with

Keywords
- First swiss satellite
- On board computer
- CDMS

CDMS
Control and Data Management Subsystem

Academic partners

- Systems Engineering Institute, **HES-SO Valais**
- **Haute Ecole Arc,** Ingénierie
- **EPFL** Space Center

HES-SO // Valais

The **Institute of Systems Engineering** of HES-SO Valais deals with objects, devices and mechanisms combining concepts of materials, energy and intelligence.
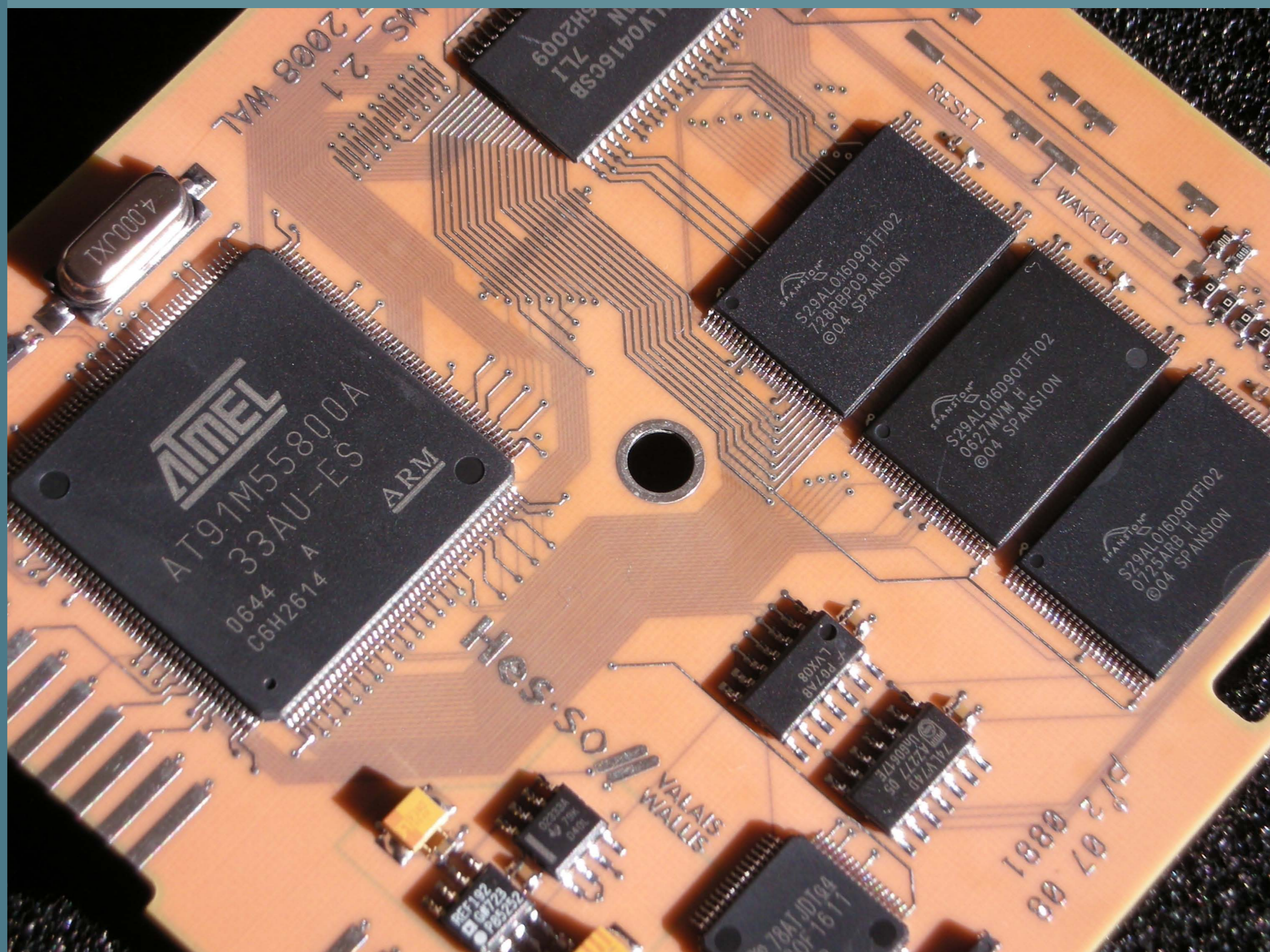Systems include mechanical devices, sensors, energy conversion and management and data processing units.

HES-SO // Valais Swisscube team

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CDMS functions

- Execution of the flight software in order to schedule the spatial mission and moreover to supply computing services for other subsystems.
- Management of the communication between the satellite and the ground station for the purpose of command and control, obtaining spacecraft safety and systems status as well as sensor data transfer.

Main characteristics of the CDMS

- Processor ARM7TDMI AT91M55800
- 2 MB Flash memory for application SW and data storage
- 512 kB SRAM memory for program execution
- 512 kB EEPROM memory for boot program
- 150 mW average power consumption

Contact

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Status

- One prototype board, one qualification board and two flight models were elaborated by the students of the HES-SO // Valais.