



UNISON-Egypt: A Look Into Space Education Future

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UNISON Egypt - SSTL

- UNISON Egypt includes laboratories from different universities: Cairo, Alexandria (currently) and Zewail (soon).
- Space Systems Technology Laboratory (SSTLab) is a student based organization at Aerospace Engineering Department, Cairo University, which was established in August 2011. SSTLab has become the main contact point of UNISON Egypt.



- **UNISON - Egypt's vision** is represented by this Quote:
"Tell me and I forget. Teach me and I remember.
Involve me and I learn." Benjamin Franklin.

UNISON – Egypt Activities 2015

UNISON – Egypt has supported many projects:

- CanSat training program
- Cube satellite systems
- Rover back
- Quad copter

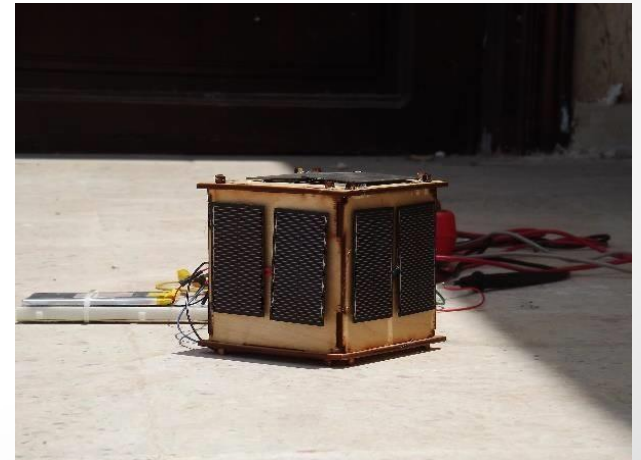
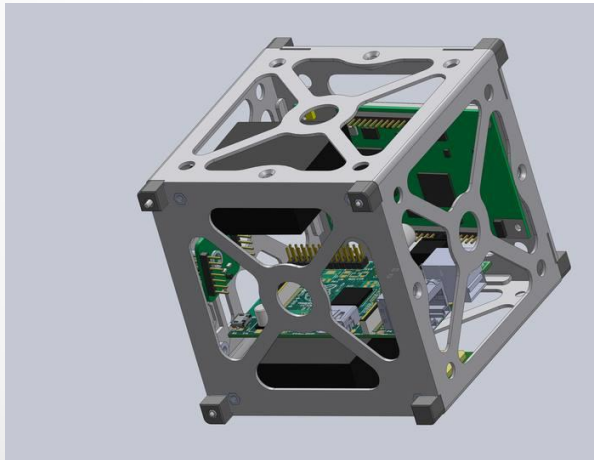
CanSat training program

- UNISON – Egypt continues CTP series.
- Training course (CTP5) was organized to 21 students from different universities in the period from Jan. 27 to Feb. 9, 2015. CanSat Design and Build Competition was organized for the 21 students at Cairo University.
- UNISON – Egypt aims to participate the following ARLISS CanSat Competition.



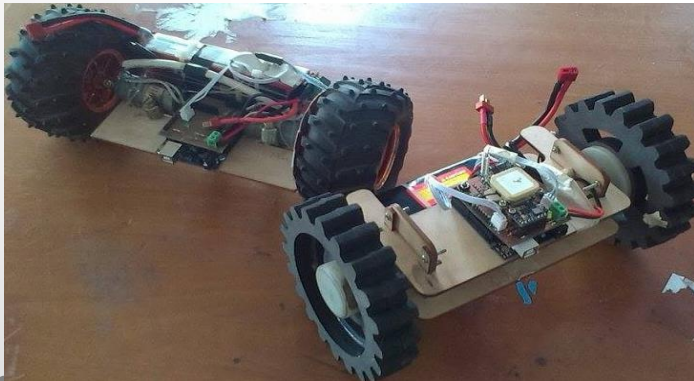
Cube satellite systems

- This year (2015) is considered to be the forth development iteration after the three iterations in 2008, 2013 and 2014.
- Undergraduate students in second year started this forth development cycle. They aim to build a CubeSat with a new technique better than the third iteration. Their mission is a data acquisition.
- They aim to participate at the following MIC.



Rover back

- UNISON – Egypt also continues the rover back program started last year (2014).
- UNISON – Egypt hold "Rover Back" training program including mechanical and electronic sub-teams.
 - Mechanical sub-team designed & built new models.
 - Electronic sub-team solved the problem of large size of the components.
- They aim to participate at the following ARLISS competition.



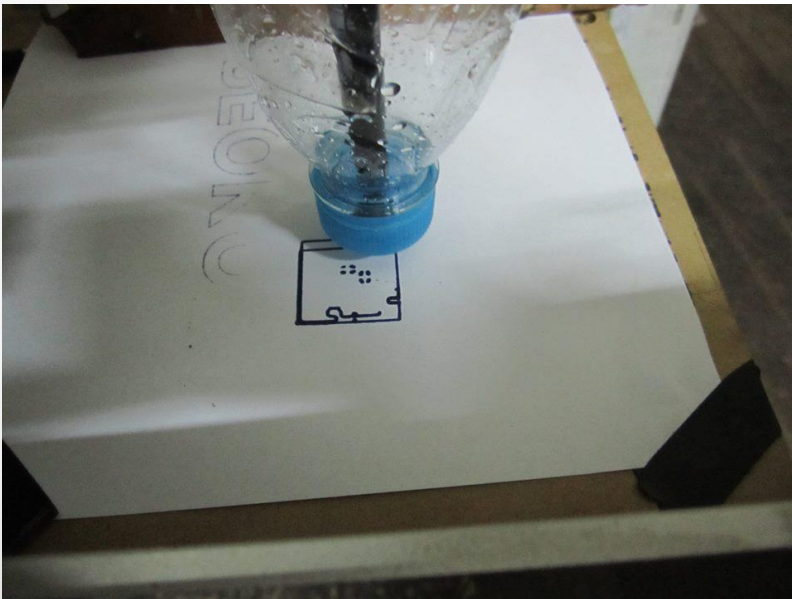
Quad copter

- Two teams are working on the development of two control techniques (classical & fuzzy) using 1-D stand this year after succeeding in manufacturing and controlling Quad-Copter last year.
- UNISON – Egypt made educational session about fuzzy control for under-graduate students in April, 2015.



Innovation

Using the innovation of our members and simple tools, we managed to build a CNC machine with high specification.



Future of UNISON – Egypt

- UNISON – Egypt's future hope is spreading the importance of space applications
- UNISON – Egypt seeks to increase its ability and capacity to get more students to its project-training programs, as the laboratories got more good reputation in Engineering-based universities

Thank you

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