

SPACE EDUCATION AND OUTREACH SYMPOSIUM (E1)

Lift-Off - Secondary Space Education (2)

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DREAM TO SPACE - SPACE MISSION DEVELOPMENT AS AN "ENABLER" FOR KIDS INTO THE FIELDS OF MATH, SCIENCE, ENGINEERING AND TECHNOLOGY (STEM) - A COLLABORATION BETWEEN IAI - MBT SPACE, TAASIEDA AND RABIN HIGH SCHOOL IN AZUR, ISRAEL.

Abstract

The Israel Aerospace Industries (IAI) MBT – Space, for the second year running is taking part in a unique program, in collaboration with "TAASIEDA" which is part of the Manufacturers association of Israel (MAI).

The program is designed to expose the high schools students to the project development life cycle, while developing a product with collaboration and under the mentoring and aiding of the engineers from the specific company, while at the same time also exposing the students to in-depth lessons and knowledge enrichment in the specific field of interest of the product.

IAI - MBT Space joined the program, under the concept that the field of space would act as an "enabler" for kids to broaden their interest in the field of Science, Technology, Engineering and mathematics (STEM).

The following presentation describes the product development cycle that was performed with the 9th grade students of the Rabin high school in Azur, Israel in collaboration with IAI MBT-Space and "TAASIEDA" during the scholastic year of 2013-2014. The product which was developed is a system called "DREAM to Space" which is designed to locate, identify and defend Earth from the threats meteorites and asteroids. The system is designed of 2 major components; the first is an autonomous telescope which is designed to be installed on Geo-synchronous communication satellites, and the second is a methodology to divert the approaching asteroid to Earth while taking advantage of the communication satellites already located in the geo-synchronous orbit.