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IAF SPACE EDUCATION AND OUTREACH SYMPOSIUM (E1)
Ignition - Primary Space Education (1)

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DA VINCI SATELLITE – ROLL OF THE DICE

Abstract

The Da Vinci Satellite project is an initiative, started at the Delft University of Technology, to inspire and enthuse the youth to learn more about technology and space travel. The team does this by focussing on demystifying space and making it a fun and engaging subject. To do this the team is divided in two; the technical team and the educational team. The technical team has been building a 2U CubeSat with two payloads that have been designed for children from primary schools and high schools. The educational team works to make specially made educational modules available for schools all around the world.

As primary schools are the perfect place to discover a passion for space, the team has visited multiple schools to ask the children: "What would you like to do in space?". The answer they got: "Play Games!". Together with LIS (Leidse Instrumentmakers School) a special payload was designed, fabricated, and tested. The 'Dice Payload' includes five differently coloured dice in colours that have been chosen such that colourblind children are also able to differentiate them. These dice are situated in a special mechanism that is able to 'roll' the dice in microgravity and also clamp them such that a picture of the numbers can be taken with the Earth as a backdrop. All the pictures will be added to a special database accessible by all. The launch date of the Da Vinci Satellite will be early next year.

For the primary school module, multiple educational games can be played by kids individually or in a classroom. Through a website that is currently being developed, the educational games will be combined with an adventure in which the kids will discover step-by-step the wonders of space. The adventure will start on Earth and will gradually zoom out to investigate the complete solar system. This educational module has been developed together with another initiative by a Dutch astronaut; SpaceBuzz. As the team seeks to educate kids, it has learned that the development of the educational and the technical side of the project go hand in hand. Communication has been key as the education side of the story provides requirements and ideas that have to be taken into account by the technical team to ensure proper progress.