Source Disrupting the Space Industry with Open Source

KISPE's goal is to build a community of open-source contributors, collaborators and beneficiaries, including those from CubeSat and SmallSat teams who are at the forefront of collaborating, adopting and championing non-traditional approaches to delivering space missions, to develop a design that is freely available for all to use

Disrupt Price:Performance Capability Roadmap Platform Ontology Third Version **First Version** Second Version Traditional "Platform on a Chip" **Commercial Off The** Increasing physical shelf parts Commoditised integration Small Satellites platform **COTS** design tools **Increasing Functional** Radiation-hard integration MBSE approach Market Manufacture "On Extended use of MBSE Robust architecture Demand" tool need Cubesat Harsh Earth Orbits Low Earth Orbit Low Earth orbit Modest missions **Demanding missions** Interplanetary missions A new approach is required to shift away from Increasing functional and system integration with each A common language for communicating, sharing subsequent version of the design current price:performance line and exploring system relationships **Active Satellite Organisations First Version Collaborator Workspace** General Posts Files Start Here - Collaborators Type 1 KANBAN Type 2 KANBAN + Organisation Website **Primary Activities** Logo 25kg-250kg Spacecraft mass AALTO Satellites https://www.aalto.fi/en/spacecraft Cubesat Subsystems 70% Payload mass fraction A? Missions, Ground segment designs Flexible payload accommodation and tools Start Here Aristotle Space and https://asat.gr/ Cubesat Subsystems, Missions, 10W-1kW Payload power, scalable to suit mission power needs What is this all about? Aeronautics Team Science Payloads Congratulations! You are reading this because you have been selected as a Collaborator to the open sour Ability to be 3-Axis stabilised - for communications and sensor payloads opment program. There is now a good chance that you will get code orbiting the earth Fossasystems http://fossa.systems/ Cubesat Subsystems, Missions, FOSSA We are organising open source contributions into 2 categories 400km to 850km altitude Ground receivers LibreSpace www.libre.space Cubesat Subsystems, Spacecraft <14 month recurrent delivery schedule $\langle n \rangle$ ing space challenges. The intent is to evelop software pragmatically and with low scruting... Giving you th unity to innovate unhindered. If this feels like what you would like to do, see the Type 1 KANBAN. Missions 5 to 7-year lifetime LibreCube https://librecube.org/ **Open Source Earth and Space** 2. Main thread, "going into space" developments. ks you can imagine, code running on a satellite must be robust & reliable. Satellites are pretty remote bits of kit and Recurrent price of \$1m for 50kg, £1m for 100kg Exploration so in service debug and patch is more challenging than normal. The good news is that the team managing this development have a wealth of experience in developing right-first-time code. This means that code in this catego Open Source www.opensourcesatellite.org Microsatellite components seeds to meet certain criteria in order to be accepted onto the GitHub master from your developi sounds like something you're into see the Type 2 KANBAN A cost-effective modular, scalable, flexible, robust, reliable OPEN SOURCE Satellite Programme subsystems, Platforms and microsatellite platform for LEO missions Missions There are only a few companies in the world developing open A cost-effective modular, scalable, flexible, Accepted collaborators have access to view and contribute to planned activities robust, reliable platform for LEO missions source spacecraft **Register to participate:** Anita Bernie: John Paffett: