Contribut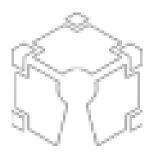ion ID: **42**   Type: **Poster**

Open source flight computer for model rockets

Model rocketry has inspired many future scientists and engineers due to its safety, low cost, and global popularity. Most often, small model rockets are not equipped with any kind of on-board avionics. A most basic avionics package records the flight parameters, providing data for determining values such as apogee or velocity. To add even the most basic avionics payload to a small model rocket, model rocketeers are often faced with the choice to either design it from scratch, or purchase an expensive proprietary module. As high-performance electronics have become smaller and more affordable, it is time for this to change.

This poster showcases the experience and lessons learned through prototyping, building, and testing a simple, yet versatile small-factor avionics module for model rockets. Current module capabilities include: logging flight parameters, live telemetry transmission, remote configuration, second stage firing, and easy extensibility in both hardware and software. The design is based on commonly available parts and can thus be built without a custom-manufactured PCB. The authors propose a vision for the future evolution of model rocket avionics and invite enthusiasts from all over the world to join in their project.

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Session Classification: Posters and Demos

Track Classification: Ground Networks, Launchers, and Operations