



We provide these documents to support the CubeSat community.

Acknowledgements: The Cactus-1 mission is Capitol Technology University's first CubeSat mission. Our launch opportunity was provided via the NASA CubeSat Launch Initiative. The Cactus-1 mission is supported by grants from the Maryland Space Grant Consortium (MDSGC).

All hardware is released under the CERN Open Hardware License version 1.2. Credit for the Work should be given to R.P. Smith in terms of authorship. Individual items will indicate citation/credits as well. Generally, you can use this to build your own CubeSat, the full license terms are in the included license file for CERN Open Hardware Licence v1.2.

Specific citations and history are given for each component as follows:

Cactus-1 proposals and mission overviews

A. Antunes, R. Schrenk, R. P. Smith, A. Walters, R. Maharaja, M. Horvath

Hermes payload (on Cactus only-- for Hermes sounding rockets, see Maharaja) by C. Murray, E. Schroen (power Board design), Carlos Del Cid, R. Maharaja, P. Smith, IP rights retained by R. Maharaja

Trapsat payload by R. Schrenk, K. Moore, Z. Richards, M. Strittmatter, A. Walters, R. P. Smith, IP rights retained by R. Schrenk

3U++ Tabbed Frame: by R. P. Smith, R. Schrenk, provided under an open hardware license

Pi-CPU/Health & Safety Boards: by R. P. Smith, A. Antunes, provided under an open hardware license

Power bus: by R. P. Smith, G. Auvray, C. Odigwe, A. Antunes, R. Schrenk

Solar: (Added this because power and solar have different aspects (i.e. licensing to use))

by R. P. Smith with assembly help from George Gieomekis, Marcus Bailey, Sam Lawson, Nick Keller, Sarah Sharpe, Alex English, Nick Aniello, Chris Finch

Passive Magnetics: by E. Routhier, B Reese, R. P. Smith with help by Ian Hastings, Christina Williams

Flight software by A. Antunes with help by Randy Powell, Zalika Dixon, and thanks to Alan Cudmore for useful discussion on his "PiSat" concept

Thermal blankets by R. Schrenk with help by Sarah Sharpe, Marcus Bailey, and George Giakoumakis

Comms: by M. Horvath, A. Johnson, A. Antunes

Burn wire, foot switches, inhibits, ports, and subsystems not mentioned: considered either part of the above, part of the general Cactus mission, or not sufficiently novel to merit publication or separate enumeration.

Full list of high-level support (addendum):

Angela Walters, Rishabh Maharaja, Marcel Mabsen, Patrick Stakem, Alan Cudmore, Dave McComas, Suzanne Strege, Alison Evans, Cinnamon Wright

Full list of students (addendum):

Pierce Smith, Ryan Shrenk, Nathan Weideman, Mark Horvath, Alec Johnson, Chris Murray, Sarah Sharpe, George Giakoumakis, Marcus Bailey, Xavier Guzman, Marissa Jagernath, Chukwuma Odigwe, Keegan Moore, Zack Richard, Jamil Ahmed, Gary Visser, Joshua Joseph, Eric Ruthier, Sean Mullin, Christina Williams, Nick Aiello, Randy Powell, Mikus Bormanis, Christel Gesterling, Zalika Dixon, Mike Stritmatter, Josh Hernendez, Ralph Stormer III, Dan Whiteside, Bryce Reese, and others.

uploaded July 2019