

Project Details

Create a “MAKEzine” for DIY Space projects, an online repository for related news and knowledge to document, report on and educate makers about the new DIY Space Industry. Project documented existing projects, interviewed domain experts, shared knowledge and hosted a PongSat Workshop with a Makerspace (HeatSync Labs in Phoenix, AZ). The website and content have been promoted via an email newsletter as well as a guest appearance on “The Space Show” with Dr. David Livingston podcast.

Current Status

All 40 articles and 30 interviews have been completed. The PongSat Workshop was held at HeatSync Labs in Phoenix, Arizona on February 21st, 2014.

Articles

Title	URL
How to start your own University Rocket Program	http://www.diyspaceexploration.com/how-to-start-your-own-university-rocket-program/
Electromagnetic Properties of Hydrogen Peroxide	http://www.diyspaceexploration.com/electromagnetic-properties-of-hydrogen-peroxide/
Solubility and Miscibility of Hydrogen Peroxide	http://www.diyspaceexploration.com/solubility-and-miscibility-of-hydrogen-peroxide/
Chemical Properties of Hydrogen Peroxide	http://www.diyspaceexploration.com/chemical-properties-of-hydrogen-peroxide/
General Description of Hydrogen Peroxide	http://www.diyspaceexploration.com/general-description-of-hydrogen-peroxide/
General Identification of Hydrogen Peroxide	http://www.diyspaceexploration.com/general-identification-of-hydrogen-peroxide/
Physical Properties of Hydrogen Peroxide	http://www.diyspaceexploration.com/physical-properties-of-hydrogen-peroxide/
Tools needed to solder	http://www.diyspaceexploration.com/tools-needed-to-solder/
Learn how to solder	http://www.diyspaceexploration.com/learn-how-to-solder/
How to solder a printed circuit board	http://www.diyspaceexploration.com/how-to-solder-a-printed-circuit-board-pcb/
How to surface mount components on a printed circuit board	http://www.diyspaceexploration.com/how-to-surface-mount-components-onto-a-printed-circuit-board-pcb/
Fixing solder mistakes	http://www.diyspaceexploration.com/fixing-solder-mistakes-or-resoldering/
Affordable space capsule wind tunnel testing	http://www.diyspaceexploration.com/space-capsule-wind-tunnel-testing/
Poor man’s guide to hypergolic testing	http://www.diyspaceexploration.com/hypergolic-liquid-rocket-engines/
Hydrogen Peroxide Structure and Spectra	http://www.diyspaceexploration.com/hydrogen-peroxide-structure-and-spectra/
Transport Properties of Hydrogen Peroxide	http://www.diyspaceexploration.com/transport-properties-of-hydrogen-peroxide/
Hydrogen Peroxide Monopropellant Systems	http://www.diyspaceexploration.com/hydrogen-peroxide-monopropellant-systems/
Thermal Decomposition of Hydrogen Peroxide	http://www.diyspaceexploration.com/thermal-decomposition-of-hydrogen-peroxide/

Heat Transfer Properties of Hydrogen Peroxide	http://www.diyspaceexploration.com/heat-transfer-properties-of-hydrogen-peroxide/
Gravity Development Board	http://www.diyspaceexploration.com/gravity-development-board-an-open-source-hardware-space-rated-computer/
Introduction to High Altitude Balloons	http://www.diyspaceexploration.com/introduction-to-high-altitude-balloons/
High Altitude Balloon FAQ	http://www.diyspaceexploration.com/high-altitude-balloon-faq/
Where to get Helium	http://www.diyspaceexploration.com/get-helium/
How to Tie Off a Balloon	http://www.diyspaceexploration.com/how-to-tie-off-a-high-altitude-balloon/
How to Inflate your High Altitude Balloon	http://www.diyspaceexploration.com/inflate-high-altitude-balloon/
What can you do with a high altitude Balloon?	http://www.diyspaceexploration.com/can-high-altitude-balloon/
What is Open Hardware?	http://www.diyspaceexploration.com/open-source-hardware/
What can you do with a Cubesat?	www.diyspaceexploration.com/what-can-you-do-with-a-cubesat/
How to use a Torque wrench	http://www.diyspaceexploration.com/use-torque-wrench/
Printed Circuit Board Software	http://www.diyspaceexploration.com/best-pcb-design-software/
What is solid rocket fuel made of?	http://www.diyspaceexploration.com/solid-rocket-fuel-made/
Model Rocket Classification System	http://www.diyspaceexploration.com/model-rocket-classification-system/
How to solder infographic	http://www.diyspaceexploration.com/how-to-solder-infographic/
how do solar cells work?	http://www.diyspaceexploration.com/solar-panels-work/
How do I become an astronaut	http://www.diyspaceexploration.com/become-an-astronaut/
Purification and Concentration of Hydrogen Peroxide	http://www.diyspaceexploration.com/purification-concentration-hydrogen-peroxide
Preparing to Manufacture Hydrogen Peroxide	http://www.diyspaceexploration.com/preparing-manufacture-hydrogen-peroxide
Hydrogen Peroxide Bipropellant Systems	http://www.diyspaceexploration.com/hydrogen-peroxide-bipropellant-systems
Phase Properties of Hydrogen Peroxide	http://www.diyspaceexploration.com/phase-properties-of-hydrogen-peroxide
Thermodynamic Properties of Hydrogen Peroxide	http://www.diyspaceexploration.com/thermodynamic-properties-of-hydrogen-peroxide
Storing Hydrogen Peroxide	http://www.diyspaceexploration.com/storing-hydrogen-peroxide
Open Source PongSat Design - altitude and pressure sensor	https://github.com/DIYSpaceExploration/PongSat

Interviews

Title	URL
Introduction to Cubesats	http://www.diyspaceexploration.com/introduction-to-cubesats/
Is Hydrogen Peroxide the best rocket fuel?	http://www.diyspaceexploration.com/hydrogen-peroxide-best-rocket-fuel/
How to create drawings a machine shop can use	http://www.diyspaceexploration.com/how-to-create-drawings-a-machine-shop-can-use/
Space entrepreneurs wanted for the next business frontier	http://www.diyspaceexploration.com/space-entrepreneurs-wanted/
Cubesat plasma thruster that runs on water	http://www.diyspaceexploration.com/meet-cat-kickstarter-cubesat-propulsion-system/
Astronauts 4 Hire	http://www.diyspaceexploration.com/astronauts-for-hire/
Tips and Tricks for PCBs	http://www.diyspaceexploration.com/tips-tricks-building-your-own-pcbs
How the International Space Apps Challenge Creates Innovation	http://www.diyspaceexploration.com/international-space-apps-challenge/
The S4 Flight Board	http://www.diyspaceexploration.com/s4-flight-board
Powering the Flight Board	http://www.diyspaceexploration.com/powering-flight-board
Communicating With the Arduino	http://www.diyspaceexploration.com/communicating-arduino
Flight Board Assembly	http://www.diyspaceexploration.com/flight-board-assembly
Testing the Assembled Flight Board	http://www.diyspaceexploration.com/testing-assembled-flight-board
Programming the Arduino	http://www.diyspaceexploration.com/programming-arduino
TOPCAT-UKube-1	http://www.diyspaceexploration.com/ukube-1_topcat/
Rocket Motor Specific Impulse	http://www.diyspaceexploration.com/rocket-motor-specific-impulse/
Deciding on a Cubesat Payload	http://www.diyspaceexploration.com/decide-cubesat-payload/
Who should be on your Cubesat development team	http://www.diyspaceexploration.com/cubesat-development-team/
Project MERCURI	http://www.diyspaceexploration.com/project-mercuri/
Cubesat Camera Options	http://www.diyspaceexploration.com/various-options-imaging-modules-cubesat-payload
How VCHS is Sending High School Experiments to the ISS	http://www.diyspaceexploration.com/vchs-send-high-school-experiments-iss
Charles Miller and Commercial Space	http://www.diyspaceexploration.com/charles-miller-commercial-space/
Meet Blaze Sanders CTO Sol-X	http://www.diyspaceexploration.com/meet-blaze-sanders-cto-sol-x/
Post Launch Satellite Tracking	http://www.diyspaceexploration.com/post-launch-satellite-tracking/
Silicon Valley NewSpace Investor Conference 2013	http://www.diyspaceexploration.com/silicon-valley-newspace-investor-conference/
Silicon Valley Space Center	http://www.diyspaceexploration.com/dr-sean-casey-silicon-valley-space-center/
JP Aerospace	http://www.diyspaceexploration.com/jp-aerospace/
Democratization of space - kicksat	http://www.diyspaceexploration.com/democratization-of-space-kicksat/
Understanding Rocket Thrust	http://www.diyspaceexploration.com/understanding-rocket-thrust/
Power System and Budget Analysis	http://www.diyspaceexploration.com/power-system-budget-analysis/

Future Developments

Infographics

Expanded use of Infographics to educate the public on various topics: space, engineering, electronics, rocketry and more. Infographics will be used to create animated videos which can be seen on DIY Space Exploration's YouTube Channel:

<https://www.youtube.com/user/diyspaceexploration>

Ground Support and Communications

Provide information and instructions to help people listen to and track orbiting spacecraft.

Open Source Space Software

Identify and compile Open Source Space Software on DIY Space Exploration's GitHub account.

Pongsats

Additional designs and information regarding Pongsats to complement existing design available on Github: <https://github.com/DIYSpaceExploration/PongSat>