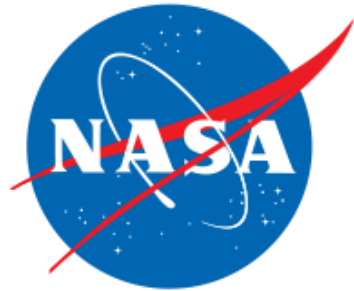




## 2016 Deep Space Habitat Designs in support of The Exploration Habitat Academic Innovation Challenge (X-Hab)



May 11, 2016

The *X-HAB 2016: Medical Bay Thesis Report* consists of the final presentation held on May 6<sup>th</sup>, 2016 with the current OSU X-HAB Faculty (Dr. Jacob, Dr. O'Hara) and several NASA correspondents. The Exploration Habitat Academic Innovation Challenge allows undergraduate students from various disciplines (engineering, architecture, etc.) to develop solutions to challenges faced in deep-space transit habitats or on Mars. The *Integrated Medical Bay* team of 2016 focused its efforts upon enhancing a currently existing analog habitat (ReHAB) with an automatized medical bay. The medical bay builds upon a finalist concept of the Fall 2015 Spacecraft Design course to deliver fast and quality medical care in case of emergency. The semi-automatic hydraulic system was designed and implemented through the application of material science, strength of materials, systems engineering and mechatronics.

Please refer to the following link below to see this presentation:

- [https://www.dropbox.com/s/0r3k9oi7uxmdzyf/OSU%20X-HAB%202016%20Capstone%20\(Med%20Bay\).pptx?dl=0](https://www.dropbox.com/s/0r3k9oi7uxmdzyf/OSU%20X-HAB%202016%20Capstone%20(Med%20Bay).pptx?dl=0)

Demonstration videos are embedded in the linked PowerPoint document, and may alternatively be watched from the following links:

- <https://www.youtube.com/watch?v=h2fLPI14b4>
- <https://www.youtube.com/watch?v=qsgLpVXjQBU>

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