



## Mechanical/Aerospace Sustainability Project

### Portable Life Support System

#### Mission Statement

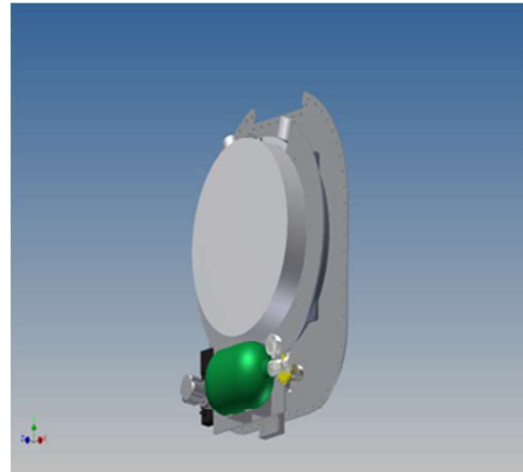
To develop a portable life support system for the purpose of supporting human life during field and laboratory testing for the University of North Dakota's next generation space suit by May 2011

#### Synopsis

Several years ago the University of North Dakota, funded through the North Dakota Space Grant Consortium, began the development of a planetary space suit for the purposes of training its students in fields useful to NASA and to test new technologies. It is with this goal that they have begun and almost finished a second generation of a student designed planetary space suit. Approximately 18-24 months ago, several students at the University of Hartford began working with the University of North Dakota. Due to the previous work of key faculty members at the University of Hartford, those working at the University of Hartford were able to take on the responsibility of developing the Portable Life Support System for the University of North Dakota's space suit.

The current design that UND has is not a portable system, and requires the user to be followed by an air compressor. The parameters that they would like in a system that mounts on the back of the suit, and allows the user to be able to traverse on their own without the aid of someone else or an "external system". To develop this UND asked the University of Hartford (UH) to create a portable life support system for their NDX-2 space suit. The UH worked on it for some time until the task became too large for the UH team and they asked the life support and sustainable living program (LSSL) to incorporate the project into their program to get different members of collegiate.

The results of this project have been submitted to Professor Clara Fang. A continuation of this work is anticipated for the 2011-2012 academic year



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