



National Aeronautics and Space Administration

NASA Builds Hardware It Needs on a HUNCH

Matt Wallila never imagined his junior year at Laurel High School would be an out-of-this-world experience. But after spending several months constructing electrical boxes for NASA, the Montana teen knew he had taken one giant leap into the future of space exploration.

Wallila is one of more than 550 middle- and high-school students who has participated in a unique program that matches a valid need in America's space program with a genuine educational experience for young people. The partnership is High school students United with NASA to Create Hardware – known as HUNCH.

The program involves middle- and high-school students in Alabama, Montana, Tennessee and Texas constructing hardware for NASA's Johnson Space Center and Marshall Space Flight Center used in training astronauts for missions to the International Space Station (ISS).

Beginning this fall, hundreds of new young people will have the opportunity to contribute to NASA's efforts with the HUNCH program in the Houston area, including schools in the Clear Creek, Cypress-Fairbanks, Houston and Pasadena independent school districts.

The idea for HUNCH came in the summer of 2003 after Stacy Hale, then a deputy project manager for the ISS Training Facility, discovered one of the greatest challenges was a shortage of training hardware. "Mock-ups of all types of hardware are critical to astronauts and flight operations teams as they train for space station missions," Hale said. "I knew there had to be an economical way of building what NASA needed."

Several months later, Hale and leaders from three schools launched the pilot program, in which seventh- through 12th-grade students in science, technology and vocational classes – ranging from welding and machine shop to electronics and drafting – spend a year constructing important components for crew training and flight controller needs.

Working closely with school district officials and teachers, Hale matches the project specifications with the school's capabilities, then assigns each school different elements of the project to complete.

HUNCH program students, who are selected by the respective teachers within each school, are briefed at the beginning of the semester. NASA provides the materials and

documentation, while the local teachers provide direction and supervision throughout the duration of the project. In the program's first year, students from Clear Creek High School and two schools in Alabama built 24 single lockers for the ISS. Since then, more than 550 HUNCH participants have been involved in numerous projects, including the construction of tool drawers, handrails, cargo transfer bags, power switches for payload racks, a lab training center control cabinet and much more. With the program's growth, NASA will be able to tap into additional manpower and resources to produce even more valuable equipment.

Hale, who now works as the full-time project manager for HUNCH, has not been surprised at the volume of work the students have accomplished, or even the superior quality of each project; the unexpected byproduct has been the inspiration it has given to so many students. Hale has watched young people with little ambition for their future become wholeheartedly engaged in the projects and excited about learning. "One of the best parts of my job is watching kids uncover self-confidence they never knew they had, simply because they felt like they were doing something relevant and valuable," he said.

Every year, it becomes more apparent that the HUNCH program is as much about building lives as it is hardware. "This experience has completely changed the way I look at school and the importance it plays in my future," Wallila said. The 17-year-old was especially overwhelmed to receive words of gratitude and encouragement from NASA astronauts on his visit to Johnson Space Center.

"The challenges brought about as you construct your project allow you to push yourself to extremes mentally," said Matt Harmon, an 11th-grade student who recently built Standoff Interface Panels (SIP) – hardware that relays information from the payload to the ISS, allowing scientists on the ground to receive data from the experiment.

For NASA, the perk of the HUNCH program is not only securing cost-effective hardware, but it serves as a valuable outlet for sharing its mission, vision, programs and projects for America's space program to numerous young people – the next generation of explorers.

For more information about NASA's HUNCH program, contact Stacy Hale at the Johnson Space Center at 281.483.6302.

About NASA-Johnson Space Center Technology Transfer Office

The NASA-Johnson Space Center Technology Transfer Office provides a means to advance internal technologies and innovations at NASA for both space-related endeavours and commercial applications. The office is a valuable resource at NASA as a pool for useful technology and innovations. Externally, the office provides strong assistance in helping entrepreneurs, companies and investors to bring useful technology to the marketplace. For more information on current technologies, to learn more about how to license NASA-JSC technologies, or to read success stories, visit <http://technology.jsc.nasa.gov>.