

Amri Hernandez-Pellerano: NASA Engineer

Many people have seen footage of astronauts in space, whether walking on the moon or working in a space station. What they may not have seen is the large, hard-working crew at the NASA space program that has made this space travel possible. NASA is one of the largest employers of engineers, scientists, and inventors. These people do much of the work before, during, and after a spacecraft is launched. They analyze the data on fuel consumption and radiation levels. They invent power sources and tools for low gravity. They analyze data sent back from missions and apply it to our understanding of the solar system. Many young engineers aspire to work for NASA. They want their careers to contribute to the greater good of learning about space, solving problems, and keeping astronauts safe. Amri Hernandez-Pellerano is one such engineer.

Ms. Hernandez-Pellerano was born and raised in Puerto Rico, a commonwealth of the United States. While going to elementary and secondary school on the Spanish-speaking island, she excelled in math and science. Her parents noticed this interest and encouraged her to pursue her education at college. Ms. Hernandez-Pellerano's parents were always supportive of her education, which was a key factor in her success as she advanced through higher levels of schooling.

After Ms. Hernandez-Pellerano entered the University of Puerto Rico, Mayaguez Campus, she decided to focus her studies on electrical engineering, a field that would later serve her well. While attending college, Ms. Hernandez-Pellerano earned the opportunity to intern for a summer with the NASA Cooperative Education Program. She worked with NASA scientists at the Goddard Space Flight Center (GSFC) in Maryland while she earned credits for school. Ms. Hernandez-Pellerano says her experience that summer at GSFC was incredibly valuable. Because of her experience, she now encourages all young students to spend some time



Amri Hernandez-Pellerano grew up in Puerto Rico and now designs electronics for NASA space missions.

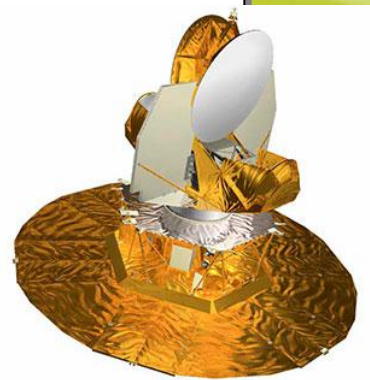
Amri Hernandez-Pellerano: NASA Engineer

working in their fields of interest as summer interns or in some other opportunity.

Ms. Hernandez-Pellerano's internship proved to be even more valuable when she obtained a full-time working position at GSFC after she graduated with a Bachelor of Science degree in electrical engineering. But she did not stop her education there. While working full time at GSFC, Ms. Hernandez-Pellerano continued her education in electrical engineering at Johns Hopkins University. There, she earned her master's degree in the same field.

In 1992, Ms. Hernandez-Pellerano began working as a power systems electronics designer for the Power Systems Branch (PSB) of the GSFC. During her time at the PSB, she worked on a variety of projects for scientific space missions. One of her greatest accomplishments has been her work with solar batteries. Ms. Hernandez-Pellerano designed, built, and tested the electronics that regulate solar array power on spacecraft. Since there are no electrical outlets in space, this machinery is important for maintaining power in spacecraft. Her invention uses the greatest power source in the solar system—the Sun. Solar batteries take in energy from the Sun and transform it into usable electrical energy. Satellites and spacecraft such as the International Space Station (ISS) distribute the energy for a variety of uses.

Ms. Hernandez-Pellerano says that although her work at the PSB is challenging, she finds it very interesting as well. It allows her to collaborate with other skilled engineers, work with the newest state-of-the-art technology for designing, and be involved with NASA's space program. She also likes her work because it gives her an opportunity to be creative. Ms. Hernandez-Pellerano believes that every mission is different, presenting new challenges and needs. This gives her the opportunity to learn, grow, and create as she applies her electrical engineering skills. And her great work has not gone unnoticed. Ms. Hernandez-Pellerano has been honored with



Ms. Hernandez-Pellerano earned an award for her contributions to the Wilkinson Microwave Anisotropy Probe (WMAP). [seen here.](#)

Amri Hernandez-Pellerano: NASA Engineer

several awards for her work and the work of her team. In 2003, she received the Engineering Achievement Award from the GSFC for a power system design used on a mission studying the properties of the universe.

In a field dominated by men, Amri Hernandez-Pellerano has made a name for herself with her hard work and contributions to space science. NASA missions and the astronauts that rely on her engineering designs have benefitted greatly from the skill and dedication she has provided.