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Students start company, design rover for moon

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Ruben Nunez, a senior Aerospace Engineering major, isn't interested in getting an internship anytime soon.

Instead, he's aiming for the moon and NASA has given him a contract potentially worth $10 million to get there.

Nunez, along with a team of students and professionals in the Central Florida area, has joined a competition to build a remote-controlled rover and send it to the moon.

In order to win the competition and the $20 million Google Lunar X PRIZE, their rover, the Omega Envoy, must land and travel 500 meters on the moon. Once on the surface, the rover must then capture high-definition video and panoramic images of its surroundings.

An e-mail and text message must also be sent.

It's a daunting task, but NASA has awarded Nunez's team, which is one of just six nationwide to receive the award, with a $10 million contract if they are able to deliver data gathered from their project on time.

"This contract has given us an incredible amount of credibility," Nunez said. "It's proof that we're capable of doing this."

Nunez said Jaydeep Mukherjee, director of the NASA Florida Space Grant Consortium and interim director of the UCF's Florida Space Institute, played an important role in securing the contract with NASA.

"We're not interested in students who are just sitting in the classroom with a high GPA,"

Mukherjee said. "It definitely helps, but we want to see them working on a project that will be sent to space."

In August of 2007, Nunez founded Earthrise Space, Inc. after he first heard about the competition and was disappointed to learn that Florida didn't have a team.

"I want to put Florida back on top for space exploration, so I made one," said Nunez.

The team is a non-profit organization with a goal of giving students the ability to design real space missions in order to prepare them for a life of advancing humanity into the stars. Being a part of the team also gives students the chance to build a space craft.

Joseph Palaia, the vice president of operations for 4Frontiers Corporation, a space research company in New Port Richey is also a an Earthrise board member. When he first met Nunez, he was impressed with the idea of students wanting to be an active part of the project.

"These days it's only menial work in internships," Palaia said. "This project is something entirely different."

In 2009 Palaia went to Devon Island, near Greenland, in order to test one of their rovers. The site has characteristics that are also found on Mars and will be similar to the conditions their rover will be dealing with in space.

Students were able to control the rover from Orlando and learned valuable information to better their own projects, such as the effects of time delay.

"It changes your entire mindset of how you're going to operate it," Palaia said.

If everything goes according to plan, the Omega Envoy will reach the surface of the moon on Dec. 6, 2013. Until then, the team has its work cut out for them.

NASA requires that the project must be 90 percent privately funded, so in order to build the estimated $30 million project, Nunez must find sponsors.

However, he isn't worried about securing these sponsors because it's in their best interest, he said.

"We'll be sharing our intellectual property for a much lower cost than what they would have to pay for hired professionals," Nunez said.

Being the only student-led team of about 20 other competitors in the nationwide competition has also given Nunez and Earthrise a stronger desire to succeed.

"This will prove that GPA isn't the most important thing," Nunez said. "We're actually gaining the experience and manufacturing something that is going to space. That's what should be important."

If Earthrise Space, Inc. wins this competition, Nunez plans on opening his own facility with the

award money. This would allow the team to manufacture its own hardware, provide manufacturing services, testing services and schedule lunar deliveries.

"We would be like the FedEx to the moon," he said.