STEM team completes NASA project launch

By Nia Daniels
Staff Writer

Langston university STEM students are the first Langston team to use a high-altitude student platform to launch a payload that reached the edge of space. Through the universities partnership with NASA Langston was the second team to complete their payload out of 66 teams.

NASA hosts a five-day "Rock On" workshop that occurs in Wallops Island, Virginia. The payload was launched in August, students are now waiting for their results and payload to come back so that they can look at the data and finalize their project.

Marcio White, assistant in Agricultural Science department and instructor in Engineering Technology department, chooses three students to work on this project each year. There are three levels to this project. The first tier is called the "Rock On" project which is building a basic payload. The second tier is "RockSat-C" program and that consists of students designing and building their own experiments, and the third tier is a more advanced payload.

White only chooses three students because the preparation work is rigorous, challenging, stressful at times and requires a lot of time. For students enrolled in the Rock On project, during the fall semester they learn the basic, premise, and end goal of payloads and then in the spring semester they do more hands-on work.

This is the sixth year Langston students have participated in presenting their payload to NASA engineers and competed with aerospace college students around the country. The Langston team was led by Sierra Garret, a senior, research scientist and program manager for this project, Talton Frison, a senior, computer scientist major, and Javion Brown, a sophomore, engineer major. Frison stepped into the role of computer scientist a week after the project began, and his duty was to program the payload. He created his own code for the payload in three-weeks. According to Frison, the pressure was high because he was a week late into the program and there was a lot of material he had to learn, but as the pressure slowed down and became easier to manage as everyone started working better as a team.

Brown's role as engineer consisted of 3D schematics online. He rendered 3D models of each piece and payload itself online. Christopher Koehler, primary Investigator for the Rock On program from Colorado University, coordinating with NASA, was impressed by Langston students. According to Frison, Koehler said to them that, "no one has ever really done this before" (regarding 3D schematics and coding), and Langston's team received compliments for being innovative.

Because of COVID-19 students were not able to travel to Wallops Island, Virginia this year, so they were left to build the project over Zoom. Garret, Frison, and Brown each had their own workstations and were able to build payload socially distance in the same area. The Rock On program this year randomly selected students who could get their payload on the rocket, and Langston wasn't selected; however, they were the first Langston team to use the HASP. "I am very proud of my team, despite how strenuous this whole process was on my personal life, Zoom allowed us as a team to slow down and work on our project at our own pace," according to Garret.

Dr. Byron Quinn, associate professor and chair of the biology department in the school of arts and sciences applied for a grant through NASA to start the advanced NASA biological research center and received a $4.89 million dollar.

Dr. Hunt, a retired associate professor of the school of Education and Behavioral sciences worked with White to work with Langston students and start the program here on campus.

White encourages everyone who is interested in STEM to join. Through this programs students will be able to work with a premiere space program and have a chance to be successful on this project and receive the highest levels of achievements they can acquires from the undergraduate program. This program offers networking opportunities with NASA engineers and different colleges who offer graduate programs for space exploration, science, technology, engineering, and mathematics.

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