

BUILDING UNIQUE
INVENTIONS TO
LAUNCH DISCOVERIES,
ENGAGEMENT AND
REASONING IN STEM

TUSKEGEE BUILDERS ACADEMY

JUNE 30, 2019

FINAL WEEK OF THE SUMMER ACADEMY!

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The BUILDERS program consists of a 3-week summer Academy and a year-long academic program during which students continue to refine their prototypes. The third week of the summer Academy is very busy, with teams rushing to complete their prelimi-

nary prototypes to share them with the rest of the Academy participants. Teams usually get into the "groove" of building during this week, and the prototypes take shape and become tangible inventions. Stopping at this point can be difficult, because the initial

problems are usually resolved and the prototypes become semi-functional. Teacher mentors play an essential role, helping teams prepare for the year ahead. We really can't wait to see the finished prototypes!

A VISIT FROM THE TUSKEGEE UNIVERSITY PRESIDENT



Dr. Lily McNair, President of Tuskegee University, visited the BUILDERS Academy on June 26. Students were very excited to show the progress they had made with their prototypes, and were eager to answer Dr. McNair's questions.



So much happened during Week 3 of the summer Academy that we had too much to share in one newsletter! We will have one more issue of our summer newsletter next week!

*Dr. McNair is the **first female** president of Tuskegee University*

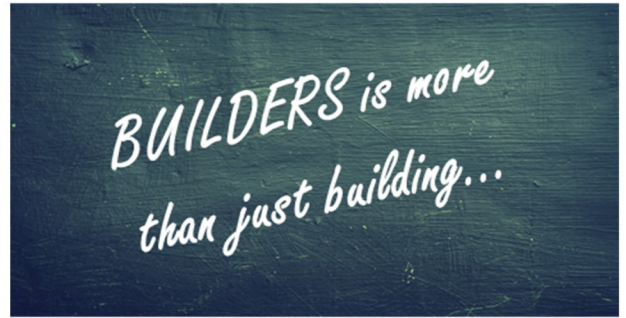
Learning about technology in the Black Belt

A main goal of the BUILDERS program is to connect students with the potential for science and technology that is present in their communities. One way to do this is to help students



connect to the history of their communities, in this case, the **Alabama Black Belt**. Our BUILDERS visited the Tuskegee Airmen National Historic Site and learned about the history

of aviation in the Black Belt. The Tuskegee Airmen were the **first group of Black American military aviators**, and they fought in World War II.



The name "**Tuskegee Airmen**" refers to the pilots from 332nd Fighter Group and 477th Bombardment Group of the United States Army Air Forces, along with their navigators, bombardiers, mechanics, instructors, crew chiefs, nurses, cooks, and support personnel. The Tuskegee Airmen were educated and trained at Tuskegee University, flew over 1,500 combat missions, and were among the most successful bomber escorts in the war.



The Tuskegee Airmen painted the tails of their aircraft red which led to them being known as the "**Red Tails**," and earned the respect of many even at a time of segregation. The Tuskegee Airmen collectively received a Congressional Gold medal in 2007, and are a great example that **a person's difficult beginnings do not preclude successful outcomes**.



The legacy of the Tuskegee Airmen is being preserved through multiple youth programs that encourage young individuals to learn about the aerospace industry



What is being built?

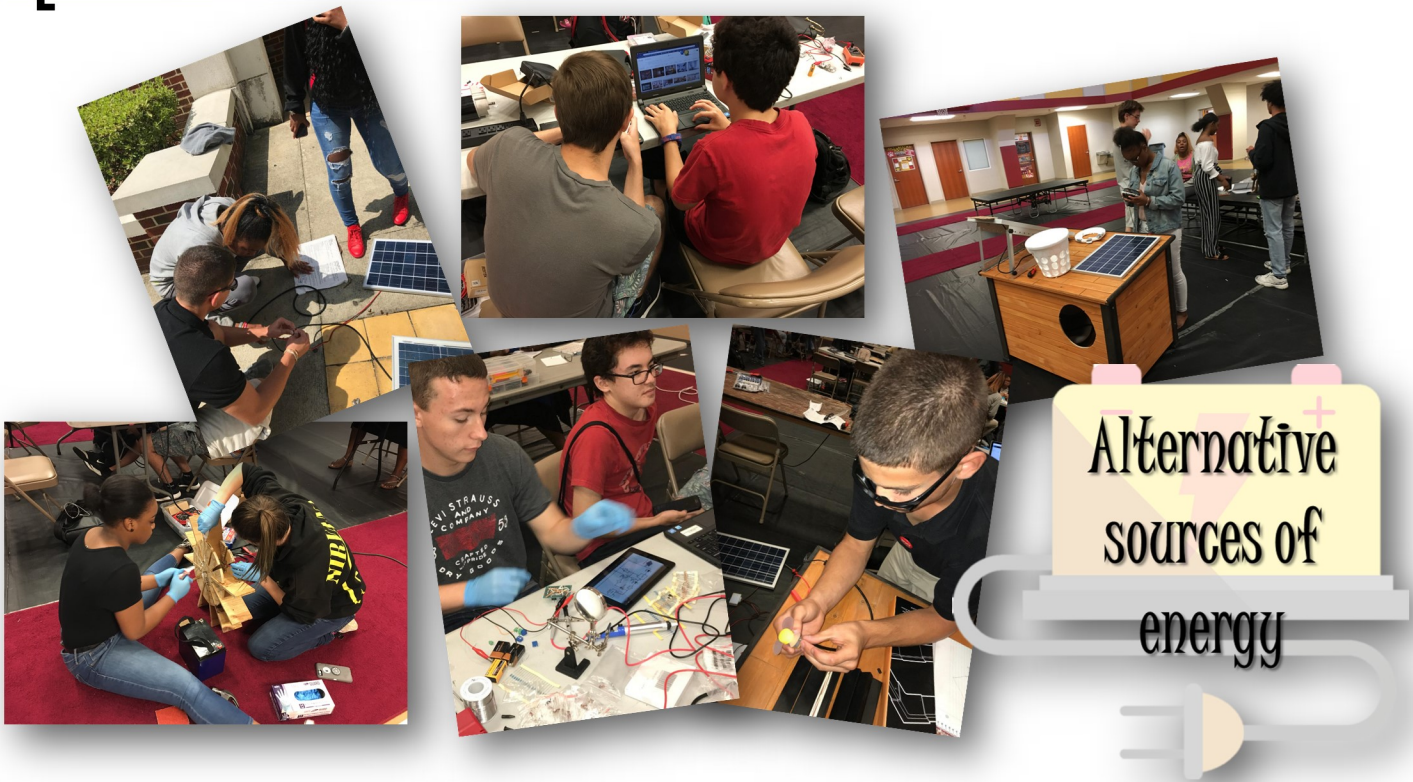


Pet tracking devices



Water purification systems





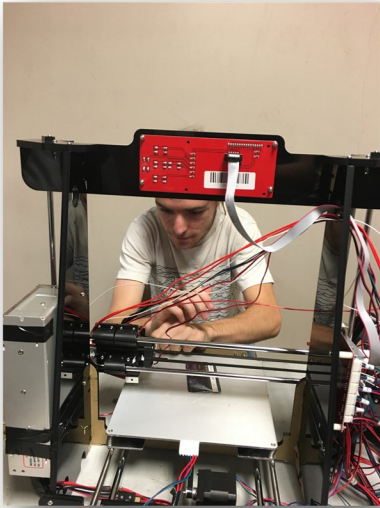
Technology meets ingenuity at the BUILDERS Academy



It is Tuesday at the BUILDERS Academy. Teens are avidly using their phones... to search for information on how to build a sphygmomanometer. Circuit boards are wired next to cardboard prototypes, recycled wood becomes functional machines, recycled jars yield clean water, computers allow imaginations to soar, and students discuss equations with a math professor. Just another BUILDERS day!

Peer mentor corner

When not helping the teams with their prototypes, some of our peer mentors worked on setting up a 3-D printer for the program. The task was a lot more complex than they had anticipated, but they were able to get it to work and shared the experience with interested students and teacher mentors. Dr. McNair was very impressed with the work our mentors were doing, and said that *"this is what Tuskegee is all about."* We could not be more proud of our peer mentors!



We will also tell you all about her...

Next week, we will publish our last newsletter of the summer. It will showcase each team's project and progress toward a working prototype!

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Learn more about the BUILDERS Program!

TUSKEGEE BUILDERS ACADEMY



Building unique inventions to launch discoveries, engagement, and reasoning in STEM



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