



**JULY  
2019**

# **THE NIGERIAN YOUTH DRONE ACADEMY**

## **IMPACT REPORT**

**GLOBAL AIR MEDIA, LLC  
1400 GREENMOUNT AVENUE  
BALTIMORE, MARYLAND, USA**

*Prepared by Eno Umoh, Co-founder of Global Air Media  
With the Support of the U.S. Consulate, Lagos, Nigeria*

# WHO WE ARE

Global Air Media (GAM), LLC is a Federal Aviation Administration (FAA) licensed and insured drone services company based in Baltimore, USA. We offer professional drone training, mapping, and survey services to clients worldwide.

In addition to our commercial operations, we launched the **Global Air Drone Academy** in 2016 to give youth a hands-on and engaging look into the emerging world of drone technology. Some of the key outcomes from our workshops include: a STEM-based learning experience into basic drone flight, coding/programming with drones, drone engineering/manufacturing, and insight into careers and entrepreneurship in this growing industry.

Over the years, we have supplied training and curriculum to 6000+ students in over 400 schools and 8 countries worldwide. We have also partnered with government organizations, NGOs, and community groups to develop sustainable programming in these areas.

## THE NIGERIA YOUTH DRONE ACADEMY IN PARTNERSHIP WITH THE U.S. CONSULATE GENERAL, LAGOS

In July 2019, Global Air Media collaborated with the **U.S. Consulate General, Lagos** to organize a week of drone technology workshops for **520 youth and adults** in Lagos and Akwa Ibom States. The students learned how to build simple drones and how to fly them. They were also exposed to the multitude of possible uses for drones as well as aspects of robotics, engineering, 3D printing, and coding.

During the workshops, **Public Affairs Officer Russell Brooks** noted that the United States government prioritizes the study of science, technology, engineering, and mathematics (STEM) throughout the world. Mr. Brooks remarked that every student deserves a high-quality education in STEM in order to enhance his or her individual possibilities as well as their ability to contribute to making our world a better place.

Mr. Russell Brooks, Public Affairs Officer delivers remarks in Akwa Ibom State



# BY THE NUMBERS

**520** YOUTH AND ADULTS TAUGHT IN ONE WEEK

**27** SECONDARY SCHOOLS ENGAGED IN LAGOS AND AKWA IBOM

**24** THE NO. OF NANO DRONES BUILT BY PARTICIPANTS

## GOALS AND OBJECTIVES OF THE DRONE ACADEMY

To expose students ages 8-15 to the world of STEM technology, a core mission of the U.S. Consulate General, Lagos

To improve student's skills in Science, Technology, Engineering, and Math (STEM) subject areas through the learning and use of drone technology

To enable students to learn about emerging technology in a fun and engaging environment

To expose students to real world STEM and its applications in related career and entrepreneurial opportunities

To enable students to participate in leadership and team building exercises

To expose students to professionals in STEM fields



# SCHEDULE RECAP

PHOTOS ON PAGE 9 AND 10

## MONDAY, JULY 1ST [LAGOS]

BUILD A DRONE WORKSHOP  
[AT CEDAR STEM HUB/LONADEK]

DRONES IN AGRICULTURE (ADULTS)  
[AT CCHUB, YABA]

## TUESDAY, JULY 2ND [LAGOS]

BUILD A DRONE WORKSHOP  
[AT CEDAR STEM HUB/LONADEK]

ENTREPRENEURSHIP IN THE DRONE INDUSTRY (ADULTS)  
[AT CEDAR STEM HUB/LONADEK]

## WEDNESDAY, JULY 3RD [AKWA IBOM]

DRONES IN AGRICULTURE (ADULTS)  
[AT THE ROOT HUB, AKWA IBOM]

## THURSDAY, JULY 4TH [AKWA IBOM]

INTRO TO DRONE TECHNOLOGY WORKSHOP  
[AT ONNA LGA]

ENTREPRENEURSHIP IN THE DRONE INDUSTRY (ADULTS)  
[AT UNIVERSITY OF UYO]

## FRIDAY, JULY 5TH [AKWA IBOM]

BUILD A DRONE WORKSHOP  
[AT E-LIBRARY]

## SUNDAY, JULY 7TH [LAGOS]

BUILD A DRONE WORKSHOP  
[AT HERITAGE GLOBAL ACADEMY, IKORODU]

## WHAT DID STUDENTS LEARN?

Over the course of 7 days, Global and Media, accompanied by U.S. Consulate staff, delivered successful drone education workshops in Lagos and Akwa Ibom States. High-quality, age-appropriate practical workshops were arranged for both youth and adults.

Youth were able to participate in hands-on Build-A-Drone workshop, where they learned how to assemble small drones from scratch. Each participating school was able to keep and take home the drone that they built.

For adults, a series of trainings and workshops were used to target entrepreneurs and stakeholders interested in learning more information about the drone industry. Topics included the use drones in agriculture, as well as the steps needed to launch a drone business in Nigeria.

# PARTICIPANT FEEDBACK

During both '**Drones for Agriculture**' presentations in Lagos and Akwa Ibom, participants suggested that there should be an association launched to advocate for the education and training of Agro-Drone pilots in Nigeria

Rice Farmers in Akwa Ibom voiced some of the challenges they face, particularly when birds damage their crops sometimes wiping out 60% of their projected yield. A potential solution could be a 'falcon-drone', which is a drone that is shaped just like the predatory bird,

Students are interested in tertiary-level education on drone technology and entrepreneurship

Repair and Maintenance of drones has been identified as a significant line of business within the drone industry. Adult participants were interested in obtaining these skills during future trainings

Some participants feel that the lack of regulations by the NCAA will be a hindrance to industry growth

## POTENTIAL CHALLENGES

**REGULATIONS** The success of the industry depends on the ability of the Nigerian Civil Aviation Authority and the Nigerian Government to adopt and craft regulations that ensure safe and ethical drone flight among approved and competent pilots.

**COST OF TECHNOLOGY** There is no doubt that there can be a high-cost barrier of entry, especially when you are sourcing drones with payload capability or sensors such as thermal and LiDAR cameras. We hope to work with various stakeholders and NGOs to introduce entrepreneurs to this technology, especially those who may not be able to afford or access it.



Participants ask drone tech questions at the University of Uyo

# AN EMERGING INDUSTRY

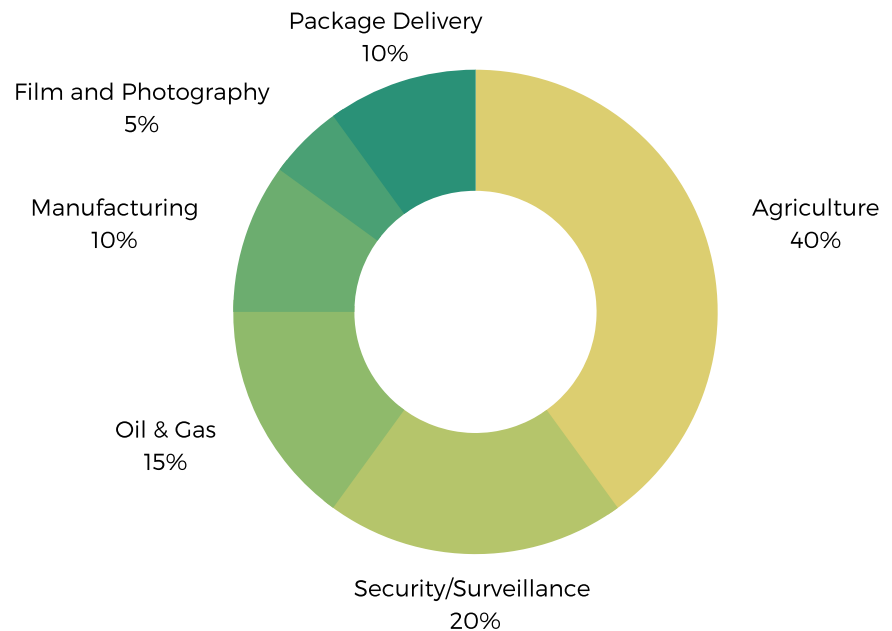
A photograph of two young girls of African descent. The girl on the left is holding a small yellow drone. The girl on the right is holding a black remote control. They are both looking at the drone with interest. The background is slightly blurred, showing what appears to be an indoor setting with blue lighting.

The Federal Aviation Administration (FAA) predicts that the commercial drone market will triple in size by 2023.

# OPPORTUNITIES FOR INVESTMENT AND WORKFORCE DEVELOPMENT

## AN EMERGING INDUSTRY: PROJECTED TRENDS IN NIGERIA

- These industries are expected to see substantial growth in the next few years
- There is a great need for education and training to ensure Nigeria is at the forefront of this emerging technology



There is no doubt that the career and entrepreneurship opportunities in the drone industry are growing. In order to be at the forefront of 21st Century tech, focus must be placed on training and development the next generation of drone engineers and pilots.

### ENTREPRENEURSHIP TRAINING AND DEVELOPMENT

Students participated in a 'Drone Business Plan' pitch competition, where they worked in groups to conceptualize a drone business idea by identifying the **PROBLEM** they wanted to solve, the target **MARKET/AUDIENCE**, **PRICING**, **SAFETY**, and **SUSTAINABILITY** of their idea. Each school group had an opportunity to pitch their drone business idea in front of a small audience.

# CONCLUSIONS AND NEXT STEPS

After delivering successful workshops to youth and adults in Lagos and Akwa Ibom States, we have determined following along with action items:

- There is **HIGH** interest from all age groups wanting to learn more about drone technology, associated careers and entrepreneurship opportunities
- We will look to establish sustainable programming and training workshops in Primary, Secondary, and Tertiary institutions
- There is need to organize a network of Agro-drone pilots
- Propose research into determine the potential economic impact of using drones in Nigeria
- Identify early-adopters of drone technology in Nigeria [agriculture, oil & gas, delivery, manufacturing, real estate marketing]
- Establish a network of professional and licensed drone pilots
- Help organize a symposium or conference that will bring together government officials, stake holders, and drone pilots in the community



"THE IMPACT IS UNENDING. THE KNOWLEDGE GAINED [FROM THIS WORKSHOP] HAS ENABLED ME TO UNDERSTAND THE USE AND EFFICIENCY OF DRONE TECHNOLOGY."

- ITUNU AINA [PARTICIPANT AT LONDADEK TRAINING]





**Meeting with His Royal Majesty Edidem Raymond Inyang Paramount Ruler of Onna LGA**



**Mr. Aniekeme Finbarr (left), SA to the Governor of Akwa Ibom State, on New Media**



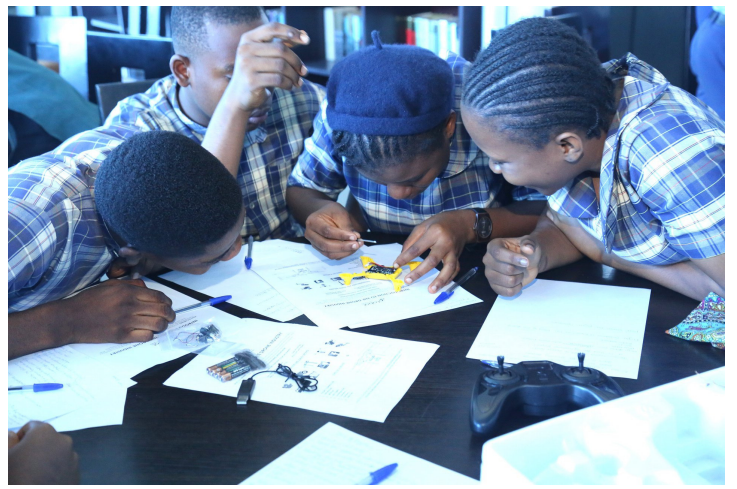
**Students display their newly built drone at the E-Library**



**Students display their new drones at the Cedar STEM Hub in Yaba, Lagos**



**Eno talks to hundreds of students at presentation organized by the Onna Community Development Council (OCDC)**



**Young girl installs the flight controller on her drone**



**Meeting with Executive Staff, University of Uyo**



**Presentation at the University of Uyo**



**Students take notes in Onna LGA**



**Eno delivers 'Drones For Agric' presentation for adults at the RootHub, Akwa Ibom State**



**Student test flies drone in front of her classmates**



**Students inspect their drone build at the E-Library**

# MEET THE TEAM

Global Air Media and the Global Air Drone Academy was formed by a team of qualified professionals with years of experience in construction, engineering, and project management.

Our mission is to conduct, develop, and validate drone operations through innovative technology, improved safety, and project efficiency. Our passion and attention to detail continues to separate us in this new and emerging industry.



**ENO UMOH**  
CO-FOUNDER



**AUSTIN BROWN**  
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**DR. THOMAS SNITCH**  
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**AMIR CHUGHTAI**  
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**VICTOR EKANEM**  
DIRECTOR OF ENGINEERING

THE  
NIGERIAN  
YOUTH  
DRONE  
ACADEMY

THANK  
YOU!

ANY QUESTIONS?

FOLLOW US ON SOCIAL MEDIA @GLOBALAIRMEDIA



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