WRO Nigeria 2025: Beyond a Competition, It is a Call to Action to Invest in the Next Generation of Innovators

Annually, participating countries worldwide witness a surge of energy, innovation, and ingenuity at the World Robot Olympiad (WRO) competition. This is always preceded by the National competitions, when signatory countries conduct their contest to determine representatives to the international competition. Nigeria is no exception to this. As a member of the World Robot Olympiad, the WRO National Competition, organised by the National Convener, Arc-lights Foundation, is hosted annually, but what if we told you that this annual gathering is not just about robots, medals, and declaring winners/representatives? It is a clarion call to parents, government, educators, organisations, and a yearly reminder of the importance of investing in the youth of today for a better tomorrow.

The WRO is a global robotics competition for children and young people between the ages of 8 and 22. The competition aims to encourage young people to develop their innovative and problem-solving skills in a fun and engaging way. The WRO has over 90 member countries where a national competition is organised yearly. The winners of the national competitions qualify to represent their country in the global competition, which is organised in a different country each year. These events are very significant because they promote science, technology, engineering, and mathematics (STEM) through hands-on experimental challenges. Its impact in science and technology is even more felt in this day and age, where innovation is the crux of every development.

On July 1st 2025, over 300 students from 44 schools across the country gathered at the Lagos Oriental Hotel for the 2025 edition of the World Robot Olympiad (WRO) Nigeria National Competition. Featuring four categories, RoboMission, RoboSports, Future Innovators, and Future Engineers, the competition provided a platform for young Nigerian students to showcase their skills in robotics, engineering, and problem-solving. What unfolded was not merely a robotics competition but a powerful testament to the capabilities of the Nigerian child when they are provided with the necessary resources, education, and confidence to innovate.

The energy at this year's event was undeniably electrifying. Teams from public schools showcased projects that are on par with those from private schools. Most encouraging is the statement from the Lagos State Commissioner for Basic and Secondary Education, Mr. Jamiu Alli-Balogun, who announced plans to integrate robotics into educational policy by developing curriculum and allocating budget resources across schools, starting with model institutions. In addition, the National Information Technology Development Agency (NITDA), through its representative, Mr. Oladejo Olawunmi, also disclosed intentions to establish a national curriculum for robotics education in secondary schools starting from September 2025. These commitments are timely and urgent.

When it comes to talent and creativity, Nigerian students have, over the years, repeatedly demonstrated their excellence. However, most Nigerians lack access to resources and opportunities to grow. The systemic complexities around our creative and innovative industry have also not been of significant aid in helping them discover, develop, and deliver their brilliance. In many parts of the country, students receive science education without laboratories, technology instruction without ICT tools, and engineering lessons without practical experience. The STEM and robotics fields in Nigeria face huge obstacles, including a shortage of qualified teachers, a lack of basic infrastructure, an outdated curriculum, insufficient funding, improper research, and a host of other challenges. With its rapidly increasing youth population, Nigeria is racing against time to bridge the STEM skills gap and equip its next generation for a future that is already here.

Events like the WRO help showcase these skills and also serve as an eye-opener to all on what is possible when students are empowered and given a chance. WRO is not just an event; it also exposes the reality that we are not doing enough to nurture the next generation of problem-solvers, engineers, and innovators. Kids who once dreaded science subjects now aspire to be inventors. Teams that initially encountered a robot at WRO are now creating their own. This showcases the transformative power of opportunity.

Arc-Lights has been the National Partner and Organiser of the WRO in Nigeria since 2011. It has worked ceaselessly to improve access to STEM and robotics education through partnerships with public and private schools, providing low-cost robotics to underprivileged schools, training thousands of teachers in robotics and basic education, providing scholarships and mentorships to top-performing WRO Nigeria teams, and engaging state education ministries to broaden access to STEM and robotics education.

This year, Arc-Lights announced a fully funded scholarship for six students in the Future Engineer category to reward excellence. The top three teams, comprising two participants each, will receive financial support for their university education in STEM disciplines in any federal or state universities in Nigeria, reinforcing the foundation's commitment to empowering the next generation of Nigerian Engineers.

As part of its broader plan to institutionalise STEM and robotics education, Arc-Lights is now working on establishing STEM hubs across the six geopolitical zones through strategic partnerships with government institutions, private organisations, international development, and funding agencies. These hubs will be designed to act as centres for innovation and learning.

As the Nigerian Partner and National Organiser of WRO in Nigeria, Arc-Lights Foundation has led the Nigerian delegation team comprising students, parents, government representatives, including commissioners, permanent secretaries and directors general, as well as technical leads of education

institutions to different countries, including Russia, Qatar, India, Costa Rica, Thailand, Panama, Malaysia, UAE, Denmark, Hungary, Indonesia, and Turkiye. This year, teams across Nigeria will be travelling to Singapore in November. These instances show that long-term change is possible when organisations like Arc-Lights Foundation commit.

We urge all concerned parties - the government to enhance STEM and robotics through educational policies, financial resources, support of STEM hubs, and competitions. The private sector is encouraged to collaborate with NGOs and schools to offer scholarships, provide equipment, and sponsor contests. Parents and educators should foster children's curiosity, facilitate opportunities for experimentation, and keep themselves informed about the latest trends in the field. The WRO Nigeria initiative transcends robotics - it reflects our nation's commitment to nurturing young intellects that will address our greatest challenges. The students participating in WRO are not merely creating toys; they are slowly building the future. Nigeria must extend its support to meet them halfway.

Chinenye Ene
Legal, Research & Advocacy Manager,
Arc-Lights Foundation.