

AURORA



ROBOTICS CORE

WORKSHOP 1.0

ORIENTATION

GENERAL CLASS RULES



- All mics should be muted
- I am always looking at the chat box so feel free drop questions anytime
- Feel free to use the “raise your hand” option anytime
- I recommend you have a note (could be digital), I tend to drop random knowledge casually

ABOUT AURORA ROBOTICS

“Aurora Robotics is an indigenous Nigerian company, built by a team of highly skilled and talented roboticists who are passionate about advancing robotics innovation locally and globally.”

- Education
- Robotics Software development
- Hardware design and prototyping
- Full-scale production



ABOUT AURORA INTERSTELLAR

Aurora Interstellar is building Africa's largest robotics, AI and Industry 4.0/5.0 network, connecting talents across Nigeria and beyond to global opportunities.

- Training and Mentorship
- Open-source projects
- Competitions, Internships and Scholarships



MEET OUR FACILITATORS

PRUDENCE EFREGEDE

Robotics software engineer, Aurora Robotics



- Top 7% B.Sc. Electrical & Electronics Engineering, FUPRE
- Specialize in Industrial Robotics & Autonomous Systems
- Former President, IEEE Student Chapter & Team Lead, ENACTUS FUPRE
- Stack: Python, Embedded Systems, ROS2
- Passion: Developing intelligent robots for industrial automation and large-scale applications

<https://www.linkedin.com/in/prudence-efregede-366310224/>



SAKA ADETAYO MUHAMMED

Program Facilitator, Aurora Robotics

- Mechanical Engineering graduate, LAUTECH, focus on robotics & autonomous systems
- Lead, Robotics & AI Innovator Network (RAIN-IN) | Former President, SPE LAUTECH Chapter
- Awards:
 - 1st – Hack4Livestock Hackathon
 - 1st – 234 AI Hackathon (UI)
 - Runner-Up – UNILAG Energy Challenge & Nigerian Genius Competition
 - Gold Medal – LAUTECH Research & Discovery Exhibition
 - 3rd – UI Design Studio Competition
- Expertise: Embedded AI, real-time systems, digital twins, simulation
- Passion: Building safe, intelligent robots for agriculture, manufacturing & service industries



<https://www.linkedin.com/in/adetayo-saka-573312238/>





QUEENDOLIN ETTA

Robotics Engineer in Training, Aurora Robotics

- Computer Engineering undergraduate, CU– focus on robotics & autonomous systems
- Lead, Robotics & AI Innovator Network (RAIN-IN) | CU Chapter
- Awards:
 - 1st Runner-Up – Shenovation APWEN
- Expertise: Python, Mathematics, Machine Learning and Data Science
- Passion: Building Autonomous Systems and incorporating the usage of computer vision in its production



MCGARRETTS OBASUYI

Underwater Robotics Engineer in Training Aurora Robotics



- Graduate, Maritime Academy of Nigeria, Oron – ND in Marine Engineering
- Passionate about applying robotics to the Maritime Industry
- Goal: Tackle challenges & bring forward innovative solutions

#Nothing_Do_We

<https://www.linkedin.com/in/mcgarretts-obasuyi-a3a3b4321/>



ABOUT ME

Well,
I am a lot of things, but for the next
8 weeks, know me as your robotics
instructor.

I am passionate about anything
robotics.

My experiences...
you will get to know as we move on.



<https://www.linkedin.com/in/bakel-bakel-6341a7150/>
<https://www.upwork.com/freelancers/bakel>



WHY ARE WE DOING THIS?

- To bridge the gap between theory and practical
- To build a community of indigenous talent
- To prepare students and young engineers for Masters, PhD, and career opportunities.
- To showcase that Nigeria and Africa can lead in robotics innovation, not just consume technology.
- To inspire consistency, passion, and collaboration



HAVE WE DONE THIS BEFORE?

Long history with education and teaching:

- Free tutorials in SS and University
- Bavigiz Acad
- Regalia x Tangier Workshop



THE IDEA



So, this is not a full coverage of robotics, matter of fact Bruno Siciliano has been learning and doing robotics for 45 years and there are things that still surpasses him. But you will get very good knowledge



PROGRAM STRUCTURE

- 2 classes per week
- 8 weeks
- 1 Assignment per week
- 1 capstone project (in groups)



All slides, code and materials
will be shared in the training
repo. Feel free to use and
share but do not modify

(I am very good with lawsuits)



GIT/GITHUB IS COMPULSORY!

🚀 Start your journey

git init

📝 Track your progress

git add .

git commit -m "First step into robotics greatness"

Push yourself to the world 🌐

git push origin main

Learn from your peers 👥

git pull origin main

Collaborate, don't isolate 🔗

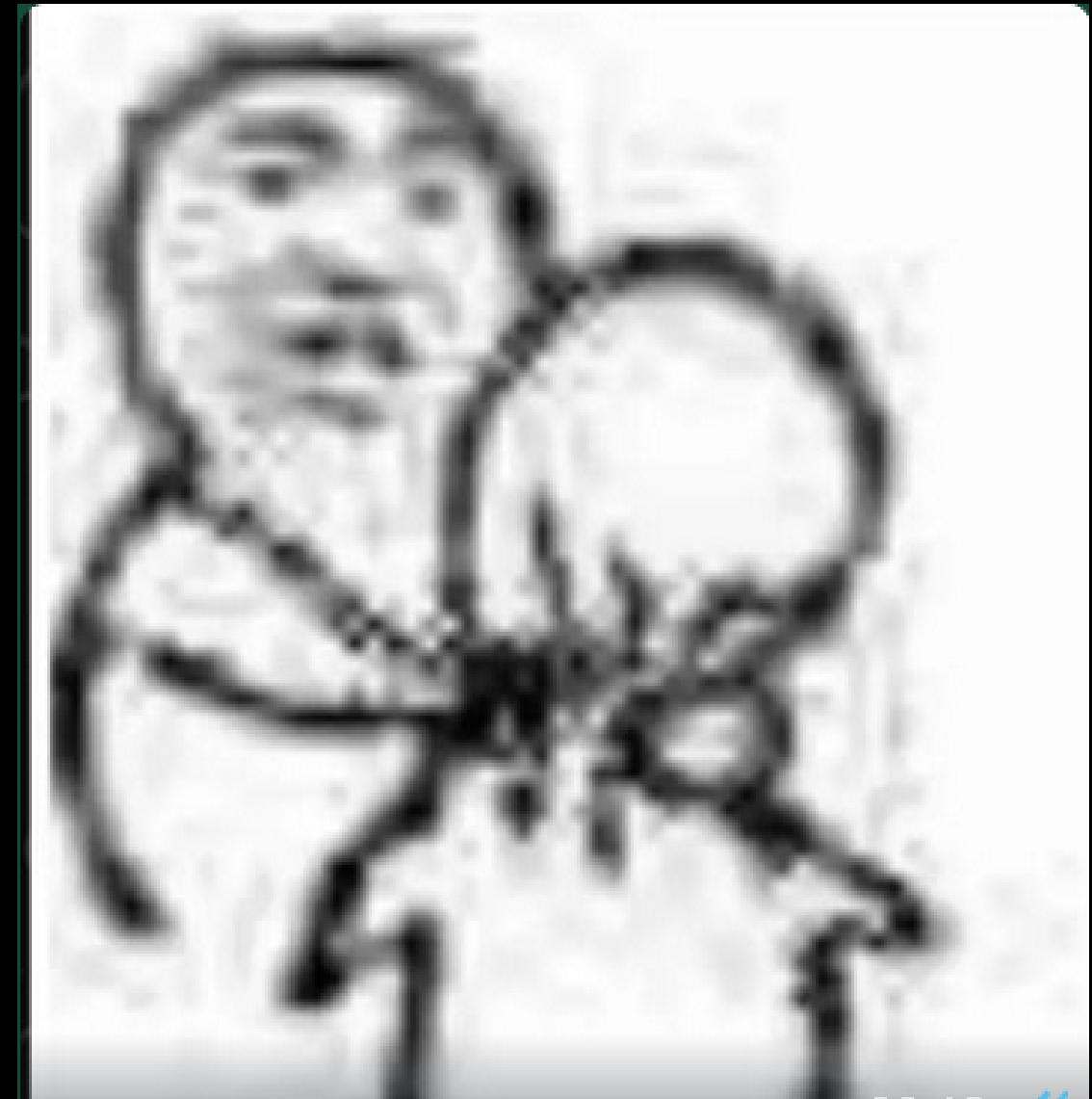
git clone <https://github.com/aurora-robotics/workshop.git>

Never forget, growth is version-controlled 💡

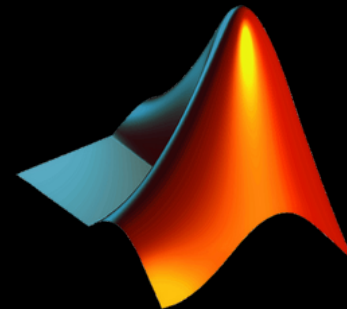
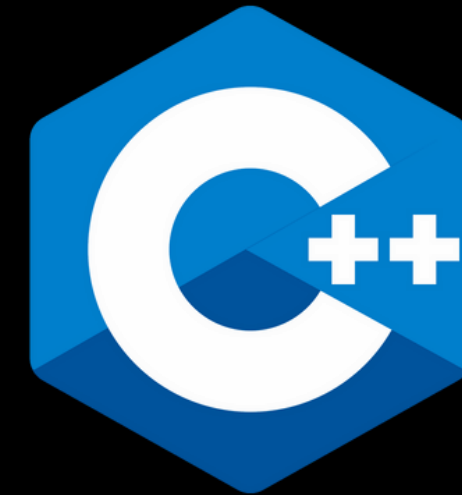
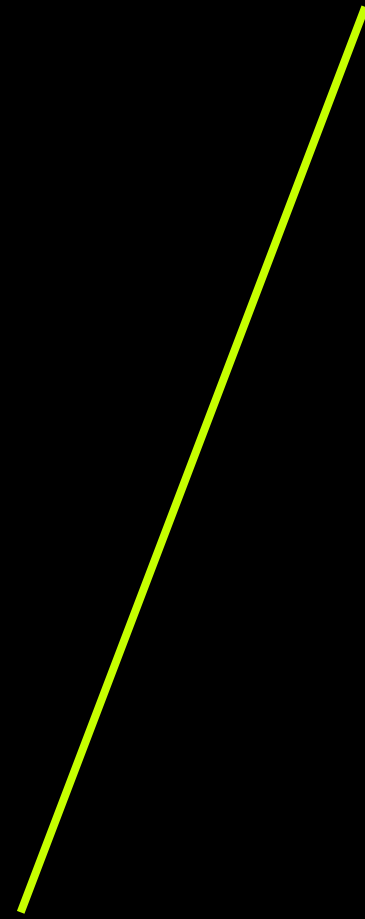
git log --oneline

at times only the violent conquers

git push --force

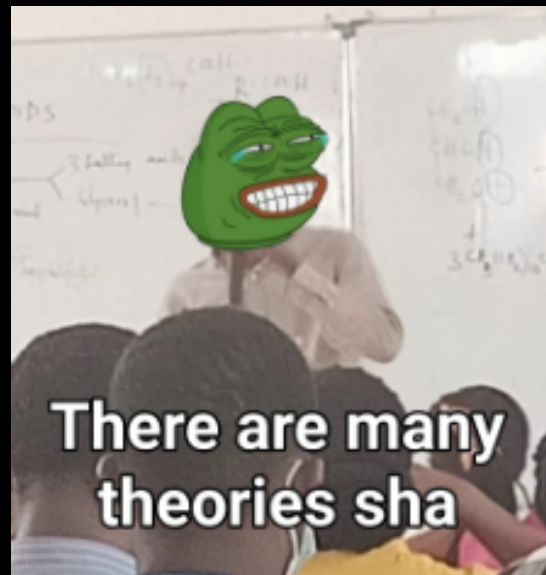


WHAT LANGUAGES?



TOPICS COVERED

<https://bakel-bakel.github.io/robotics-core-workshop-oct2025/>



EXPECTATIONS

What do you expect from me?

Clarity – I will break down robotics concepts step by step, linking theory to real coding and simulations.

Guidance – I'll share my own journey to help you with Masters, PhD, and career paths.

Support – I'll be available for your questions, debugging and feedback.

Opportunities – You'll get real, portfolio-ready projects and open-source contributions you can showcase.



EXPECTATIONS

What do I expect from you?

Consistency – Attend sessions, stay engaged, and keep up with assignments.

Curiosity – Don't just copy code; ask why it works, and push deeper.

Collaboration – Help each other; robotics is teamwork, not solo work.

Growth mindset – Be willing to fail, debug, and try again, that's how engineers are built.



MINDSET

Curiosity over perfection – Don't be afraid to ask questions or experiment. Robotics is about exploring the unknown. **RUN INTO THE UNKNOWN**

Fail fast, learn faster – Every error is feedback. Debugging is not a setback, it's part of the process. **FALL QUICK THEN ASK**

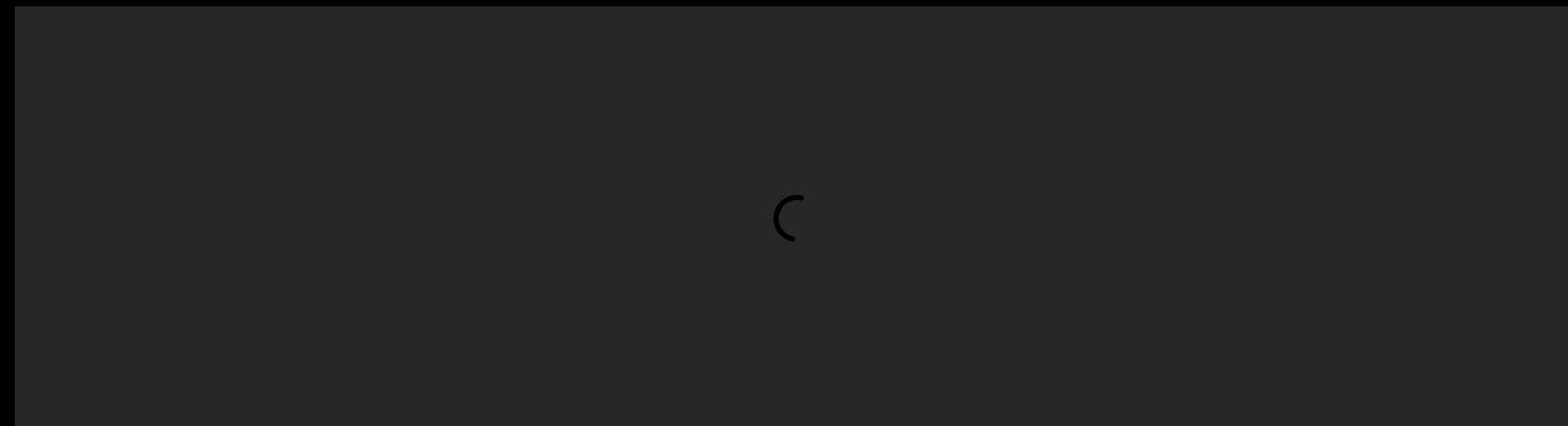
Consistency beats intensity – Small, steady progress each week builds mastery.

Collaboration over competition – Help your peers; in robotics, teams build what individuals can't. **NA ALL OF US GATHER DEY**

Global vision, local pride – Remember, you're part of an indigenous Nigerian robotics community that can compete worldwide. **CARRY WAKA**



COMMUNITY GROWTH

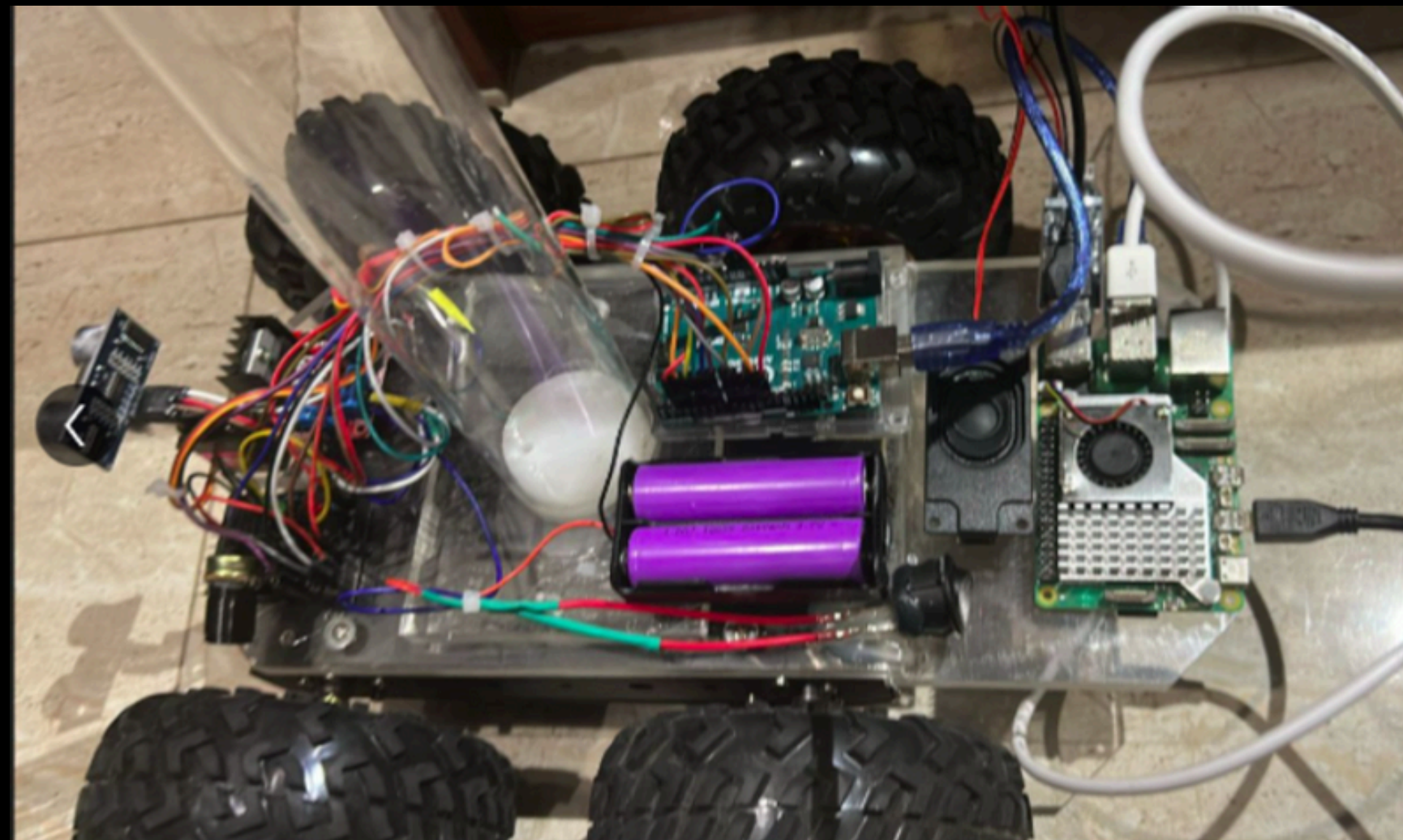


<https://chat.whatsapp.com/Ie0NRPEsvxuEXnIJ4IfHpm>



A LITTLE ABOUT ROBOTICS

story time



<https://www.upwork.com/freelancers/bakel?p=1953814737041731584>



GUESS HOW MUCH I WAS PAID



THANK YOU FOR LISTENING

Contact Information



[Aurora Robotics](#)



[aurora_robots](#)

