

10th Edition Coding Summer School with Arduino



Kenya Flying Labs's Sila Kironji taking the participants through the session.



A group of kids following instructions keenly.

OVERVIEW	
Flying Labs	Kenya Flying Labs
Location	Nairobi, Kenya
Date	27th-28th, March 2021
Length (number of days)	2 days
Sector program (optional)	YouthRobotics
Format	In-Person
Co-organizer if applicable	Think Young Africa
SDGs	GOAL 4: Quality Education GOAL 5: Gender Equality GOAL 17: Partnerships to achieve the Goal

SCOPE & OUTCOMES	
Type of training	<ol style="list-style-type: none"> 1. Introduction training to drones 2. Youth/STEM training
Goal of the training	<ol style="list-style-type: none"> 1. Create drone awareness 2. Encourage youth to embrace STEM through drones, robotics and coding
Expected outcome for participants	<ol style="list-style-type: none"> 1. Understand how an Arduino works and program an LED to blink. 2. Arduino based project ideas. 3. Understand types and basic components of drones and robots. 4. Applications of drones and robots.
Confirmed outcome after training	Participants gained confidence in coding through a more hands on approach with Arduino. This was done by completing certain tasks such as programming an LED to blink. Teachers were also a part of the program as they helped and were also given virtual technical support through the Kenya Flying Labs team.
Eventual next steps	The training is conducted twice annually so we will have another session around November, 2021.

PARTICIPANTS	
Profiles and number of participants	<ol style="list-style-type: none"> 1. Staff from Government (ministries, government service, etc.) - 1 person 1. Professionals (individual consultants, researchers, experts, teachers, etc.) - 4 people 2. Local community members - 3 people 3. University students - 3 students 4. School children - 60 children
Name of participants' organizations	The participants came from various schools within Nairobi County.
Gender ratio	Male : Female 2 : 3
Who paid for the training?	The training was supported by Think Young and their partners.
Participant fee rate (if	Training was free of charge

applicable)	
Scholarships offered?	All participants attended the sessions for free

CONTENT	
Training components	<ul style="list-style-type: none"> - Fact finding session - 20% - Theory session - 30% - Practical session - 40% - Exercises - 10%
Training resources used	<ul style="list-style-type: none"> ● Arduino kits, presentation slides, drones(DJI Mavic 2 Pro,DJI Mavic pro) and computers. ● Provide direct links to the resources if you would like to share them. Think Young CSS 10th ed
Approaches and methods used	<ul style="list-style-type: none"> ● We had a discussion and fact finding session which targeted to find out the needs of the students. ● The training had a theory session and a hands on session where kids practically coded and wired the arduino boards. ● After covering the theory, participants moved on to the Arduino kits to program and test their theory knowledge on the LED lights. We plan to have more sessions for the kids to learn this year and are currently looking at virtual sessions, weekends and after school options. ● All participants were involved in a practical session, we divided the kids into groups to be able to share and use the resources we had.