



Skills Masters CODE

Festival 2025

The Premier Coding for Kids Competition

28th June 2025
at Strathmore University

Guide Book



Skillsmasters



Strathmore University

iLabAfrica Centre



Ministry of Information,
Communication
&
Digital Economy

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INTRODUCTION

1.1 About Skills Masters

Skills Masters is the global home of excellence for design-led thinking.

We are a team of passionate and dedicated individuals from various academic fields brought together with a shared vision of equipping young people with prerequisite skills to prepare them for a digital future.

Our mission is to empower our learners with skills through interactive learning and encourage them to develop critical thinking and problem-solving skills at a very early age. We aim to empower learners from all walks of life with skills that enable them to be global citizens in the digital world. Our programs are carefully designed to impart **CRITICAL THINKING** and **PROBLEM SOLVING SKILLS** to our learners creating solutions in a dynamic environment.

We seek to promote this mindset shift by making design-led thinking accessible to everyone as a standard practice.

1.3 What is Code Festival 1.0 2025

CODE FESTIVAL 1.0 2024 is an annual coding competition by **SKILLS-MASTERS KE**, in collaboration with **STRATHMORE UNIVERSITY, iLab Africa Centre**, where participants make innovative projects with hands-on learning using basic app development platforms to create solutions to real life situations..

This is the **BIGGEST CODING COMPETITION** in Kenya: dedicated to empowering young minds with essential coding skills.

It is an innovative program designed to develop young people's coding and digital skills in line with GoK's vision for **DIGITAL LITERACY** and promote Government's **Fourth Medium Term Plan (MTP IV) 2023-2027**.

Talented young programmers from different backgrounds and schools will come together either individually or as a team to demonstrate their ingenuity, originality and skill in programming. Participants will have an enriching experience as the competition will feature interactive coding challenges, workshops, and mentor-ship sessions.



1.4 Objectives of Code Festival 1.0 2024?

1. **Nurture computational thinking:** Cultivate problem-solving approaches that break down challenges into logical steps, using coding as a tool. This equips kids for future success in any field, not just tech.
2. **Unearth Kenya's tech talent pipeline:** Identify and empower gifted Kenyan youth who will be the driving force behind the country's future technological advancements.
3. **Bridge the digital divide through inclusivity:** Make the competition accessible to a broad range of Kenyan children by providing resources, bridging any language barriers, and fostering a welcoming environment regardless of socioeconomic background.
4. **Ignite innovation with a Kenyan focus:** Challenge participants to address problems relevant to the Kenyan context, like developing mobile apps to improve agriculture, education, Climate change or healthcare delivery in Kenyan communities.
5. **Cultivate collaboration alongside coding skills:** Incorporate teamwork elements into the competition, encouraging kids to work together on projects, fostering communication and problem-solving in a team environment. This prepares them for the collaborative nature of most tech workplaces.

1.5 Expected Outcomes of Code Festival 1.0 2024

1. **Learners to develop and nurture computational thinking:** Code Festival 1.0 is expected to help learners develop and nurture their problem-solving skills in line with Ministry of Education's curriculum design.
2. **To build a pool of software developers:** This event is expected to create a pool of software developers enthusiastic about their skills, ready to learn and be mentored. This should bridge the gap as per statistics at the MoICT.
3. **To create the hunger for digital skills among the young generation:** This is expected to ensure maximum utilization of government digital projects like the digital hubs.



THEMATIC AREAS OF CODE FESTIVALS 2025

Code Festival 2025 is based on the UN SDG 4 and 13 i.e **Quality Education & Climate action**. The following are key Thematic areas:



Smart Learning Tools for Rural Schools

Objective: Develop software or robots that enhance access to quality education in underserved rural areas. In this category learners can also develop apps to celebrate and preserve Kenya's diverse cultures, languages, and traditions.

Examples: Interactive learning apps, low-cost robotic teaching aids, or tools to support remote learning.

Waste Management and Recycling

Objective: Create robots or software solutions to improve waste sorting, management, pollution, recycling, or reducing plastic pollution.

Examples: Automated waste sorting systems, apps to track recycling efforts, or robots that collect litter.



Climate Change Awareness

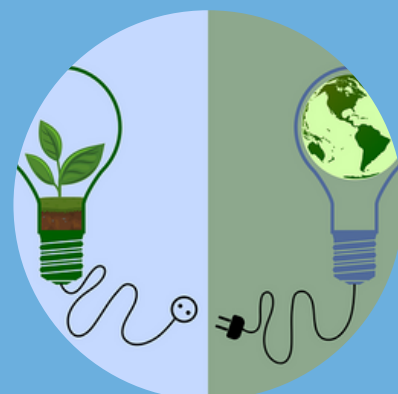
Objective: Design educational apps, games, or websites that raise awareness or help in conserving the environment, wildlife and natural parks.

Examples: Games that simulate the impact of deforestation, apps that track carbon footprints, or interactive climate models.

Renewable Energy Monitoring Systems

Objective: Build software or robots that monitor or optimize the use of renewable energy sources like solar or wind power.

Examples: Solar panel efficiency trackers, wind turbine monitoring systems, or apps to promote energy conservation.





STRUCTURE OF CODE FESTIVAL 1.0

6.1 Main Categories of Code Festivals

1. Innovation and Entrepreneurship
2. Robotics Challenge

6.2 Aggregation of Competing teams based on age.

Competition is open to learners in Kenyan schools both in CBC and international curricular. The learners shall be divided into two groups based on their age:

CATEGORY:	Intermediate	Advanced
AGE:	10-14 years	15-18 years

The physical layout of the festival shall be shared after 26th July 2024 in a virtual meeting with all Team Leaders. This will be determined based on the number of registered projects.



MAIN CATEGORIES FOR CODEFEST 2025

1. Innovation and Entrepreneurship

THEME: **Monetizing innovative skills: Coding for future**

This category focuses on transforming young innovators into tomorrow's entrepreneurs, emphasizing the UN's Sustainable Development Goals for students **aged 10-18**.

Your ideas have the power to transform the world! Create projects on the themes under the United Nations' Sustainable Development Goals (SDGs) vision using any coding platform or programming language. Win a chance to fund your project into an entrepreneurial journey that helps people and planet now and into the future.

- **Create original innovative project.**
- **Available for physical competition.**
- **Students can participate as an individual or as a team. Teams will have a maximum of 6 members.**
- **Make a write up on your project using the attached template (Using the powerpoint slides attached.)**

How to Participate?

1 Register

Registrations close on Friday **30th May 2025**. Registration fees is **Ksh. 3,000**. per participant. A team can have a maximum of 6 members with a Team Leader/Coach.

- ***The Team Leader, mentor or coach's responsibility is limited to mentorship and guidance only. They should not be directly involved in project making, demonstration, or pitching ideas. Otherwise, it can lead to disqualification of the team.***
- ***Only one project submission is allowed per team.***

2 Develop The Project

You are expected to develop an original innovative project based on the four thematic areas of the competition..

3. Win

Show your skills and aim for the top!

***Evaluation:***

First, your submission should stay by the participation and submission guidelines. Failing to follow the rules will result in disqualification. Your project will be evaluated by jury and given marks as per the following criteria:

Note: The Judges decisions will be final. We kindly ask all participants to be respectful and considerate towards the jury members and the Code Festival team.

Disrespectful behavior may lead to immediate disqualification from the competition and/or future Code Festival events.



2. Robotics Challenge

Learners will engage in a thrilling competition where robots powered by Artificial Intelligence (AI) tackle real-world challenges and revolutionizing life. Showcase your expertise in AI, Robotics, Machine Learning (ML), and intelligent systems as you shape the future of smart world and redefine the possibilities of life.

In the Code Festival 2024, Robotics Challenge is a physical robotics competition. The participants will design and build their Robot with any platform to perform tasks around the four thematic areas.

The robot can be Autonomous (programming the robot to follow a predetermined path using the line-following technique) or Manually (direct control of the robot using your device) controlled and must be Do-It-Yourself (DIY).

Code Festival 2024 will help students develop their 21st Century skills and creativity in :

Coding

Engineering Skills

Strategies and Planning

Robotics concept

Artificial Intelligence

Real-world problem-solving

1.1. Eligibility Criteria for Registration

- **Create original innovative project.**
- **Available for physical competition.**
- **Students can participate as an individual or as a team. Teams will have a maximum of 6 members with a Team Leader/Trainer.** *(The Team Leader, mentor or coach's responsibility is limited to mentor-ship and guidance only. They should not be directly involved in project making, demonstration, or pitching ideas. Otherwise, it can lead to disqualification of the team.)*
- **Make a write up on your project using the attached template (Using the powerpoint slides attached.)**
- **Only one project submission is allowed per team.**

1.2 Register

Registrations close on Friday **13th September, 2024**. Registration fees is **Ksh. 3,000**. per participant. Registration link: <https://bit.ly/codefestival1>

1.3 Develop The Project

You are expected to develop an original innovative project based on the four thematic areas of the competition..

1.4 Win

Show your skills and aim for the top!



1.5 General Rules & Regulations

Stick to the general rules and regulations for a smooth and enjoyable experience.

- ***The robot should be programmed using any coding environment they are conversant with.***
- ***The mentor or coach's responsibility is limited to mentorship and guidance only, they should not be directly involved in making or controlling the robot.***
- ***Any direct involvement will lead to the disqualification of the team.***
- ***The Code Festivals team will reveal surprise rules on the competition day for participating teams, ensuring an engaging and fair experience for all***



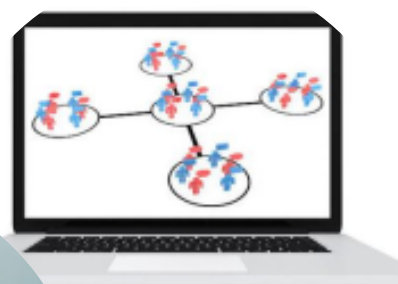
AWARDS



**Trophies and
Medals**



Cash & Coupons



**Fellowship &
Mentor-ship**



Certificates



Gadgets



Overall Winners

Position	Trophies	Certificates	Medals
Winners	1	Yes (Each Member of the Team)	Gold
1st Runners Up	1	Yes (Each Member of the Team)	Silver
2nd Runners Up	1	Yes (Each Member of the Team)	Bronze

Category Winners (10-14 years and 15-18 years)

Position	Trophies	Certificates	Medals
Winners	1	Yes (Each Member of the Team)	Gold
1st Runners Up	1	Yes (Each Member of the Team)	Silver
2nd Runners Up	1	Yes (Each Member of the Team)	Bronze

NOTE:

There shall be more special awards based on our partners interest. Such awards include and not limited to Scholarships, Gift Vouchers and electronic devices.



OUR PARTNERS

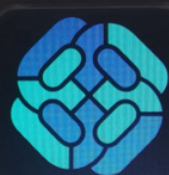


MINISTRY OF INFORMATION,
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Strathmore University

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FONTINI CRISTI ENTERPRISE
SINCE 2016



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Code Festival Program

Date: 28th June 2025. Time: 8:00am-1:30pm

Venue: Strathmore University Auditorium

Time

Event

08:00am-08:30 am

Arrival & Registration

Briefing & Setting up Exhibition projects

0:30am-10:30am

Presentation of projects before Judges

10:30am-12:30pm

Panel Discussion:

TOPIC:

12:30pm

- Arrival of The Guest of Honor and guided Walk through the Projects

- National Anthem & Prayers

12:35pm-12:45pm

Brief Speeches by Guests & Partners

12:45pm-1:00pm

Speech by Guest of Honor

1:00pm-1:20pm

Awards

1:20pm-1:25pm

Photo Session

1:30pm

National Anthem & Closing prayersPrayers

Departure with Guest of honor leaving first

#CodeFestivals #CodingIsFun



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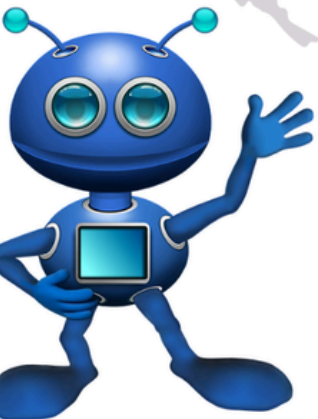


GOOD 2nd FESTIVAL

PREMIER CODING & ROBOTICS
COMPETITION FOR KIDS IN KENYA

Age Categories:
10-14 & 15-18

SATURDAY, JUNE 28 2025



Strathmore
University
(Main Auditorium)



8:00am-1:30pm



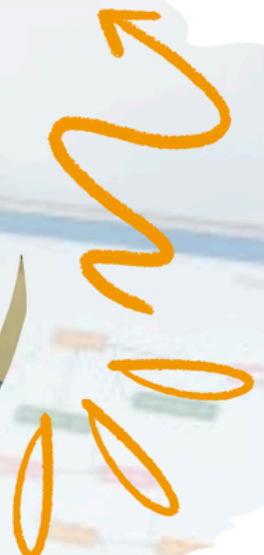
Register Today

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Skillsmasters Code Festival 2024

at Strathmore University
21st September 2024



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