Concept Note for the Her eSTEAM Initiative

Empowering Girls through Digital Skills in Science, Technology, Engineering, Arts, and Mathematics (STEAM)

# Introduction

Girls in Nigeria face significant challenges related to self-esteem, gender bias, and access to quality education in Science, Technology, Engineering, Arts, and Mathematics (STEAM). According to the **UNESCO Global Education Monitoring Report (2022)**, only **35% of students enrolled in STEAM-related fields in Nigeria’s tertiary institutions are women**, and female participation in digital skills training remains disproportionately low. Furthermore, a **2021 UNICEF report** found that **1 in 3 Nigerian girls experience self-esteem issues** due to cultural norms, gender stereotypes, and limited role models in technology-related fields.

The **Her eSTEAM Initiative** by **Coderina** aims to address these challenges by using digital skills and STEAM education to **boost the self-esteem, confidence, and career aspirations of Nigerian girls**. The initiative will provide training, mentorship, and hands-on learning experiences in coding, robotics, artificial intelligence (AI), and other emerging technologies while integrating creative disciplines such as digital arts and design.

# Rationale

**Why Her eSTEAM?**

1. **Bridging the Gender Gap in STEAM**
   * The **World Economic Forum’s Global Gender Gap Report (2023)** ranks Nigeria 130th out of 146 countries in gender parity, with significant disparities in technology and engineering fields.
   * **Women hold less than 22% of jobs in AI and engineering globally**, according to a **UNESCO Science Report (2021)**, indicating a need for early intervention to encourage more girls in STEAM careers.
2. **Building Confidence and Leadership Skills**
   * Studies show that **engaging girls in digital skills early improves problem-solving abilities and increases their confidence in pursuing STEAM careers**.
   * Many Nigerian girls **internalize societal stereotypes** that discourage them from technical subjects, limiting their career prospects.
3. **Enhancing Economic Empowerment**
   * **The digital economy is projected to contribute up to 15% of Nigeria’s GDP by 2025**, according to the **National Digital Economy Policy and Strategy (2020-2030)**.
   * Encouraging girls in STEAM **will expand employment opportunities** and reduce gender-based economic disparities.
4. **Role Modeling and Mentorship**
   * The absence of female role models in technology fields **limits young girls’ aspirations**.
   * Her eSTEAM will provide mentorship programs with **successful women in STEAM careers**, inspiring girls to believe in their potential.

# Objectives

* **Boost self-esteem and confidence** among girls through hands-on STEAM activities.
* **Equip girls with foundational and advanced digital skills**, including coding, robotics, AI, and design thinking.
* **Increase female participation in STEAM careers** by providing early exposure and career guidance.
* **Promote problem-solving, innovation, and creativity** in young girls through project-based learning.
* **Foster a supportive community** where girls can collaborate, share experiences, and be mentored by accomplished women in STEAM.

# Expected Outcomes

* **At least 5,000 girls trained annually** in various digital and STEAM-related skills.
* **Increase in self-reported confidence levels** among participants, measured through pre- and post-program assessments.
* **More girls pursuing STEAM-related courses in higher education** due to early exposure.
* **Stronger representation of women in Nigeria’s tech workforce** over time.
* **A growing network of female STEAM mentors and role models** to sustain the initiative.

# Program Structure

The **Her eSTEAM Initiative** will be delivered through:

1. **STEAM Bootcamps** (Short-Term Intensive Training)
   * Hands-on workshops in **coding, robotics, AI, digital arts, and engineering concepts**.
   * Guest sessions with **successful women in STEAM fields**.
   * Confidence-building exercises and leadership training.
2. **Her eSTEAM Clubs** (Sustained Engagement)
   * Weekly or bi-weekly sessions in secondary schools.
   * **Peer mentorship and teamwork** on STEAM projects.
   * **Participation in national and international competitions**.
3. **Mentorship & Role Modeling**
   * One-on-one mentorship with **women leaders in tech, engineering, and design**.
   * Career guidance, networking, and internship opportunities.
4. **STEAM Community Outreach**
   * Engaging parents, teachers, and communities to support **girls in STEAM**.
   * Awareness campaigns to **break gender stereotypes**.

# Indicative Budget

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| --- | --- |
| Category | Estimated Cost (₦) |
| Training materials & equipment | 15,000,000 |
| Software & digital resources | 5,000,000 |
| Trainer & facilitator fees | 8,000,000 |
| Venue & logistics | 7,500,000 |
| Mentorship & outreach programs | 5,000,000 |
| Marketing & awareness campaigns | 5,000,000 |
| Monitoring & evaluation | 5,000,000 |
| Total Estimated Budget | **50,500,000** |

*Note: The budget is scalable based on the number of participants and geographic reach.*

# Implementation Timeline

| **Phase** | **Activities** | **Timeline** |
| --- | --- | --- |
| **Phase 1: Planning** | Develop curriculum, onboard trainers, set up partnerships. | March - April 2025 |
| **Phase 2: Pilot Launch** | Initial training sessions in key locations. | May - July 2025 |
| **Phase 3: Expansion** | Scale to additional schools and regions. | August - December 2025 |
| **Phase 4: Evaluation** | Assess impact, refine approach, plan for continuity. | January 2026 |

# Why Support Her eSTEAM?

* **Tangible impact on self-esteem and future opportunities** for girls in Nigeria.
* **Aligns with global and national goals**, including SDG 4 (Quality Education) and SDG 5 (Gender Equality).
* **Contributes to Nigeria’s digital transformation agenda**, ensuring more women participate in the tech-driven economy.
* **Strengthens workforce diversity**, which studies show leads to more innovative solutions and economic growth.

# Conclusion

The **Her eSTEAM Initiative** is more than a digital skills program; it is a movement to **empower, inspire, and transform the lives of young Nigerian girls**. By fostering self-esteem through STEAM education, **we can unlock their full potential, bridge gender gaps, and build a more inclusive future**.

**We invite partners, funders, and stakeholders to support this transformative initiative** and make a lasting impact in the lives of thousands of girls across Nigeria.