STEAM
SCIENCE TECHNOLOGY ENGINEERING ART MATH

DREAMERS WISH FOUNDATION
Empower • Educate • Inspire

STEAM EDUCATION AND INEQUALITY IN AFRICA

Project
Establishment of Solar-Powered STEAM Centers with satelite internet access in off-grid village schools. Beginning with villages in Ghana and Kenya.

Outcomes
- Enhanced STEAM proficiency
- Nurturing innovators and creativity
- Advancing STEAM Education
- Fostering cross-disciplinary learning
- Promoting gender equality
- Empowering communities

Impact Projections
Over 8000 student dreamers K-12 (ages 4-17) served annually.

Fund Utilization
Estimated implementation cost analysis is $25k per village school, which means we can support 10 schools.

- Construction and equipping of STEAM Centers
- Solar power integration
- Innovative STEAM curriculum development
- Empowering teachers with increased leadership trainings

TEAM DREAMERS
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www.dreamerswishfoundation.org

Background

A Utah based 501 c3 non-profit established in 2021 by Godwill Tandoh, a Ghanaian immigrant living in Utah, looking to giveback to underprivileged children in his mother's village. Currently serving over 1600 kids in Ghana and Kenya. Partnered with 3 universities, 3 non-profits and 6 local businesses.

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MISSION

To empower, inspire and educate underserved and technologically impoverished students through STEAM education

Annual Budget $50,000
Revenue: $20,000
Spending: $15,000 YTD

The Problem

- Limited Infrastructure and Resources
- Teacher Training and Capacity
- Limited Access to Technology
- Gender Disparities
- Curriculum Alignment
- Language Barriers
- Socio-Economic Disparities
- Policy and Governance

Current program

- Voluntourism: Volunteer to serve on humanitarian projects in a village school in Africa as well as participate in a cultural immersion program. As short as 10 days or as long as 3 months (with ability to extend).
- Education and Literacy Programs: provided library books and encouraged guided reading sessions.
- Future Leader youth mentorship program: Students are paired with a local or international mentor who helps them navigate choosing a career, college prep and personal excellence goals.
- Health and Medical Initiatives: provide hygiene kits for girls and educate youth once a month on personal health care.
- Arts and Cultural Preservation: Dance 4 A Cause using dance as a platform to promote the preservation and celebration of African arts, culture, and heritage. Also helps recruit volunteers.
- Refugee youth apprentice program (BETA TESTING): Job experience for youth empowers them to develop an entrepreneurial mindset.

Population served

- Age: African children and adolescents 4-17 years old. In Utah, African refugee immigrants.
- Location: Rural villages in West and East Africa
- Gender & Ethnicity: All
- Family background: Low-income living under poverty line
- Educational background: Students attending usually the only primary school in their village. The school faces resource constraints, with few educational materials and limited access to technology. The quality of education is impacted by a shortage of trained teachers, leading to large class sizes and limited individual attention.
- Language Barrier: The language of instruction in the school might not be students' native language, which can pose communication difficulties and impact the comprehension of lessons.
- Physical ability: some students of physical disabilities for e.g., Eye disability, walking, reading.

Size of organization

- 1 Founder and Executive Director
- 1 Treasurer /Accountant
- 4 board directors
- 3 Advisors
- 1 program director
- Over 40 volunteers
- 2 area directors
- 1 technical director

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Impact & Effectiveness

Innovation

- Embrace Technology: We use online tools to direct fundraising and recruiting efforts
- Collaborate and Partner
- Implement Creative Fundraising: Dance 4 A Cause
- Human-Centered Design: voluntourism
- Experiment with Pilot Programs
- Continuous Learning and Improvement
- Monitor Trends and Research
- Empower Staff and Volunteers
- Monitor and Measure Impact
- Address Emerging Challenges

How we measure and evaluate impact and effectiveness

Outcome Measurement
Data Collection and Analysis
Pre- and Post-Assessments
Case Studies and Stories:
Cost-Benefit Analysis
Stakeholder Feedback
Theory of Change
Impact Evaluation Studies
External Evaluations
Continuous Learning
Reporting and Communication

How the project is innovative

- Sustainable Energy Integration using solar panels and battery cells to provide electricity to power up to 40 laptop computers per school
- Addressing Educational Gaps with a holistic approach that uses hands-on and experiential learning
- Inclusivity and gender equality is addressed by encouraging parents to send girls to school
- Bridging Urban-Rural Divide by bringing electricity and technology to remote locations
- Long-term Impact on Local Economy through the STEAM learning Center that to provides resources to student and community at large
- Role Model and Inspiration through the future Leader mentorship program

Partnerships

Non-Profits

Ngoma y'africa
Bomba Marile
Fathers & Families Coalition of Utah
Utah Valley Refugees
UTAH Non-Profit Association
365 Poetry
Salt Lake Capoiera
Dream Feet Foundation

Institutions

Weber State University
University of Utah Neighborhood partner program
Utah State University extension

2023 Sponsors

Harvest Consulting
ExploreNotBoring
Lila Yoga Studio
Duvin Pintor Art Gallery
Clubhouse SLC
Andorful Real Estate
K-Real Estate
Laconga Social

Project Proposal

Qualitative Impact

- **Promotion of Arts and Culture through art mural installation in Dadome Primary School (Ghana)**
- **Improved Access to Education via books, shoes and school supplies**
- **Community Development: via parent-teacher "accountabili-buddy"**
- **Empowerment of girls via workshops on hygiene and health care**
- **Social Inclusion and Advocacy via all-4-one program**
- **Nurturing Innovation and Entrepreneurship**

Quantitative Impact

- **Improved student retention rate by 80% via Future Leader mentorship program**
- **Improved graduation rate 95% via Book and exam kit supply project**
- **Increased attendance 60% via art back to school drive and art mural installation**
- **40% improved literacy rate i.e., reading and writing via guided reading sessions in library space**
- **400 girl hygiene kits distributed for 1 year's worth via health and medical initiative**
- **Over 200 students attending arts & culture preservation via Dance 4 A Cause program**
- **6 classrooms refurbished to offer a higher quality learning experience**
- **1 historical playground completed in Mepe, Ghana to serve 3000 community students.**

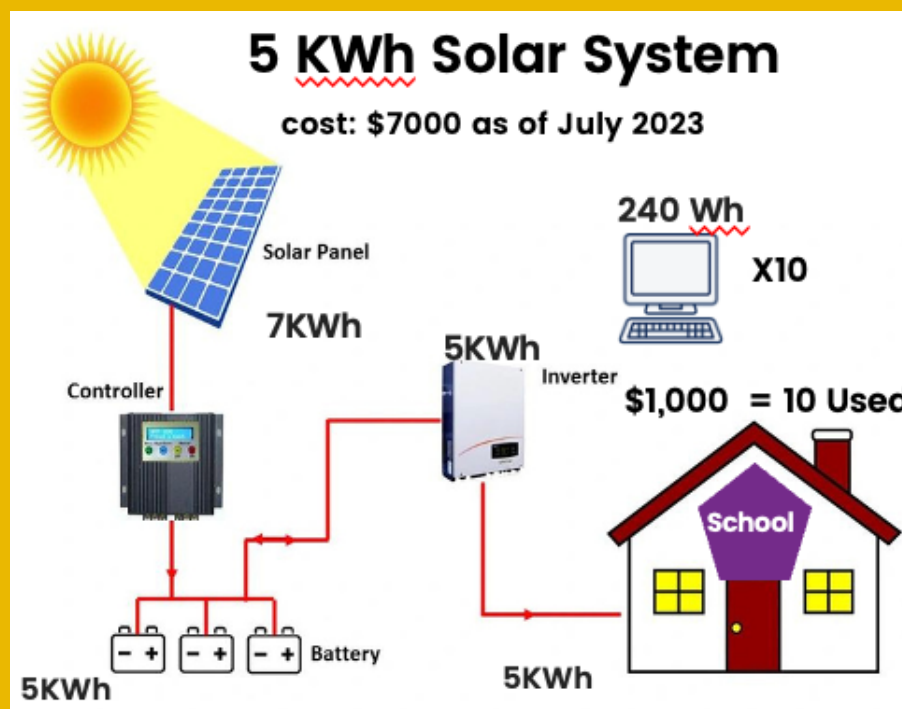## DREAMERS WISH FOUNDATION
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How we will measure impact

These are some of metrics we measure:

- Student retention rate by percentage
- Graduation rates by percentage
- Literacy rate
- How many supplies are distributed
- number of classrooms refurbished
- number of volunteers attending dance 4 A cause a number participating in voluntourism
- Number of playgrounds installed
- Number of local jobs created
- How many students will attend the steam centers
- Number of teen pregnancies and STI
- Crime rate reduction

5 KWh Solar System
cost: $7000 as of July 2023

Solar Panel · 7KWh · Controller · 5KWh · Inverter · 240 Wh · X10 · $1,000 = 10 Used · School · 5KWh · Battery · 5KWh

Maintenance budget : $3000 annually

RACHEL-Plus 4.0 Internet($750)
1,000 GB SSD

This RACHEL Server is designed for use in offline schools, community centers, health centers, or places of learning worldwide where internet access does not exist or is limited. This is our primary product, which is used by hundreds of partner organizations in over 40 countries worldwide.

Enhanced hardware features include:

- **Up to 20-50 simultaneous users***
- **Remote access and updates if/when plugged into the internet**
- **No recurring fees of any kind**
- **5 hour+ battery life**
- **Extended WiFi range**
- **Password protected teacher portal to easily upload PDFs, Movies, and other files**

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Project Proposal

How the project is scalable

- Modular Design and Standardization
- Teacher Training and leadership empowerment
- Technology-Enabled Learning
- Local Resource Mobilization
- Partnerships and Collaborations
- Monitoring and Evaluation
- Community Empowerment
- Replication and Adaptation
- Advocacy and Awareness

Projected impact

Over 8000 Children K-12 (ages 4-17) annually
Gender: All types

2023-2024 Impact in Ghana and Kenya
Stakeholders
8000 students
5500 boys 2500 girls
110 teachers
10 schools (5 per country)
10 Steam Centers
400 computers

Ongoing engagement Opportunities for GS Folks

- Changemaking voluntourism opportunities for particularly black employees and all others to participate in a heritage cultural Immersion Travel experience to Africa. Connect with roots while serving underprivileged communities and giving back.
- Open invitation to participate as a board member
- Project partnership & collaboration with GS owned e-learning platform Kahoot
- Virtual Mentorship via Future Leader mentorship program
- Investment opportunity to invest in a child's future
- Path to simply becoming a good human.

STEAM Center Activities

- Basic Computer lessons such as typing
- Coding
- 3-D Design and printing
- Robotics (Includes virtual robotics)
- Problem solving and critical thinking
- Computational Thinking
- Fine & liberal art cultural heritage dance

Quantitative and Qualitative Impact

- Improved Access to Quality Education
- Skill Development for Local Industries
- Bridging the Digital Divide
- Greater Opportunities for Higher Education
- Regional Progress and Connectivity
- Empowering girls to become future leaders
- Creating next generation of innovators, problem-solvers, and change-makers, creating a brighter and more sustainable future for all.

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CONCLUSION

MEPE VOLTA
REGION, GHANA

3000 ENROLLED
STUDENTS
6 COMMUNITY
SCHOOLS

KENYA COASTAL
PROVINCE
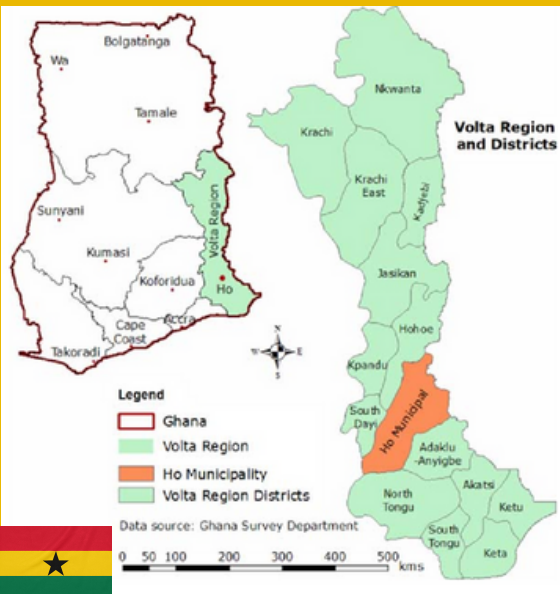
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WHY SHOULD YOU INVEST IN AFRICA'S FUTURE?

By investing in Africa's future leaders, we tap into the next generation of innovators, problem-solvers and critical thinkers in a currently underprivileged part of the world. You can help uncover the genius within each of these children who can be a part of creating a brighter and more sustainable future for us all.

In addition to this, it is a very strategic and socially responsible choice for companies. It not only enhances their competitiveness and market presence but also contributes to the sustainable development and prosperity of Africa as a whole. By empowering the next generation of leaders, companies can leave a lasting positive impact on the continent and build a brighter future for both themselves and Africa's youth.

Building STEAM (Science, Technology, Engineering, Arts, and Mathematics) centers in remote villages in Africa offers numerous benefits:

1. It provides access to quality education and modern learning resources, empowering young minds with the skills needed to thrive in the 21st-century job market.

2. STEAM centers foster innovation, critical thinking, and problem-solving abilities, nurturing a new generation of creative leaders.

3. These centers bridge the digital divide by introducing technology and digital literacy to underserved communities, empowering them to participate in the global digital economy.

4. STEAM centers promote gender equality by encouraging girls' participation in STEM fields, challenging societal norms and empowering girls.

5. These centers serve as community hubs, fostering collaboration, and socio-economic development, ultimately transforming remote villages into vibrant centers of growth and opportunity.