

# Hands-on STEM

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They end-up avoiding STEM fields in their future career & as a result, our future generation is lacking the curiosity to discover, innovate, tinker and exceed the level of being consumer to joining the maker movement.

Our project aims to promote STEM for Middle and High school students, in a different but appealing way, via hands-on applications.

## CATEGORY

[Access to Education](#)

## LOCATION

[Lebanon](#)

## WHAT IS THE CHALLENGE OR NEED YOUR PROJECT WILL ADDRESS AND WHAT INNOVATIVE METHODS WILL YOU EMPLOY?

### Describe the specific need or challenge that your team will address with this project

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### Briefly describe the specific solution or approach to address the need or challenge and explain why it is innovative

Our solution is to create a platform that helps in establishing STEM clubs in schools where students, via hands-on applications, will learn about the steps rather than get told.

This project will be first of its kind in Lebanon and the region and will be developed so that other Arab countries can benefit from it.

This platform will provide the curriculum, kits, guiding resources and training materials to students and teachers who will be in charge of setting the club in their schools.

### How will the project impact your community? What changes (in people, institutions, attitudes, practices) do you think you will see?

STEM clubs will have a huge impact on students, teachers and schools.

Students will gain practical, team work and leadership skills. Their confidence and engagement in STEM will increase as well as their motivation to study STEM and enter STEM careers. They will perceive science as a way of thinking and not as a body of knowledge.

Impact on teachers will include enjoyment and satisfaction; enhanced subject knowledge and ideas and professional development. It also bring together staff who may not usually work with each other. They can improve relations between students and teachers, and build links with local industry and employers, as well as raising the profile of STEM and the school within the local community.

As a result, a maker spirit is raised in our future generation and they have built in them

## WEBSITES

<http://www.kidsgenius.me>

## MEET THE TEAM

Project owner

[Petra Saab](#)

[Lebanon](#)

[TechWomen](#)

Project members

[Manage members](#)

[HISHAM AL-AFFOURI](#)

[Jordan](#)

[Professional Exchanges \(TPPs\) -](#)

[American Council of Young Political](#)

[Leaders \(ACYPL\)](#)

[\[remove from project\]](#)

[Racha Bia](#)

[Algeria](#)

[TechWomen](#)

[\[remove from project\]](#)

[Najib Abou Ismail](#)

[Lebanon](#)

[Near East and South Asia](#)

[Undergraduate \(NESA UGRAD\)](#)

[Exchange Program](#)

[\[remove from project\]](#)

[Lina Akiki](#)

[Lebanon](#)

[Professional Exchanges](#)

[\[remove from project\]](#)

[Abbas Sibai](#)

[Lebanon](#)

[Middle East Partnership Initiative](#)

[\(MEPI\)](#)

[\[remove from project\]](#)

[Asal Ibrahim](#)

[Jordan](#)

[TechWomen](#)

[\[remove from project\]](#)

[Ghewa Srour](#)

[Lebanon](#)

[English Access Microscholarship](#)

[Program \(Access\)](#)

[\[remove from project\]](#)

[Sandra Alarja](#)

[Palestinian Territories](#)

[TechWomen](#)

[\[remove from project\]](#)

[SALHA NASSER Sr.](#)

[Lebanon](#)

[International Visitor Leadership](#)

[Program \(IVLP\)](#)

the curiosity to discover new ideas, innovate, tinker and exceed the level of being consumers only.

[\[remove from project\]](#)

[Giselle Pempedjian](#)

[Lebanon](#)

[E-Teacher](#)

[\[remove from project\]](#)

## WHO WILL BE INVOLVED?

### Beneficiaries: who are your target groups (or communities) and how many people will directly benefit from your project?

Our target group is student from grade 5 to 12. Since our project is a pilot project , during its first year our goal is to establish 4 STEM clubs in 4 schools (2 private and 2 public) from different regions in Lebanon.

These clubs will involve more than 400 students and 20 teachers. Based on our successful results, we will build an online platform where we share our experience and open opportunities for new schools interested in implementing STEM clubs at their premises by training their staff and supporting them to run it successfully.

Thus, beneficiaries will be students who will be more interested in STEM and eager to use STEM to develop their own ideas, teachers who will be trained to integrate Hands-on activities in their teaching approach, schools who will be upgrading their systems to integrate the latest technologies and the community that will benefit from new leaders in STEM in the coming years.

### Local partners

Ministry of Education: we will collaborate with the Ministry of Education and seek for their support in reaching public schools.

Kids Genius, whose founder is Sabine El Kahi (team member), will provide the space for training the teachers and students and prepare them to launch STEM Clubs in their school.

Schools: interested schools have to provide the space and committed teachers to insure the continuity of the STEM Club activity. Two private schools have already showed high interest in joining.

Companies and universities that will be hosting the field trips.

### Alumni team

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**Proposed Project Dates:** June 01, 2015 - May 31, 2016

## HOW AND WHEN WILL YOU IMPLEMENT YOUR PROJECT?

### Implementing Plan and Timeline

In a STEM club, students will explore different aspects of STEM in a fun and interactive way and benefit from organized field trips to tech companies and universities. They will participate in an interschool competition by developing an interdisciplinary project within the trending subjects of Science, green energy, mobile apps, technology, design and electronics.

Those projects will be judged during a STEM fair organized by the end of the year and a pitching workshop will be given during year to help them present their ideas.

We are going to follow this timeline;

June-Sept 2015: Curriculum development and material selection in the areas green technology, science, electronics, technology & design, programming. Competition planning and timeline. Reaching companies and planning of field trips visits.

Sept 2015 : start contacting schools and selecting candidates to be trained; 4 students and 2 teachers will be selected per school

Oct 2015: Launching ceremony

Nov-Dec 2015 : Training of the selected students and teachers

January 2016 : implementation in schools and setting the STEM Clubs

January-May 2016: We will supervise the STEM Club activities and support the trained staff, and launch the competition.

March 2016: pitching workshop

April – May 2016: creation of a web portal that will include the curriculum and all guiding

resources

May 2016: Science fair and competition results, closing ceremony, reporting and evaluation

### **Communication Plan**

Our main goal is to set 4 STEM clubs in 4 schools from different regions in Lebanon. An official request will be sent to the ministry of education to spread the word among the public schools then interested schools will contact us. Private Schools will be called and visited.

Social Media: The program will have independent accounts on twitter, facebook, linkedin, youtube. The program will be promoted as well on the social media accounts of the partnering political parties and their websites..

Posters will be hung at schools promoting the STEM club and the competition.

At the end of the project a web portal that will include the curriculum and all guiding resources will be created and an electronic brochure resuming the activities will be prepared and distributed.

### **Evaluation**

We will measure success during the beginning, middle and end of the project. Our main concern is to assess the need for the program, the program design and content, the program implementation, the program outcomes and the program cost and efficiency.

The areas of review will mainly include:

- o First Impressions
- o Membership Orientation
- o Fellowship, Variety, and Communication
- o Program Planning and Meeting Organization
- o Membership Strength
- o Achievement Recognition

The evaluation will rely on online surveys and questionnaires during the beginning, middle and end of the project. We will also record the effects of the STEM club on a limited number of people. A study of that group of people can provide an in-depth look at the changes that occurred after the STEM club began its work (longer-term change).

### **Sustainability**

By the end of the project we will build an online platform where we share our experience and open opportunities for new schools interested in implementing STEM clubs at their premises by training their staff and supporting them to run it successfully.

Also based on the project result, we would establish our NGO to insure getting future funds and support new schools to establish the same model and improve the teaching approach in STEM in our country.

## **TOTAL FUNDING REQUESTED**

\$25,000.00

## **PROPOSAL DOCUMENT:**

[Download budget](#)