



# A Guide to International Outreach

Written By:

The Combustible Lemons (Team 5466)

Davenport West High School

Davenport, IA

<http://ftc5466.weebly.com/>

A Guide to International Outreach for All Teams

**Table Of Contents**

1.0 Define Your Purpose -----  
--- 3  
    1.1 State the Mission -----  
-- 3  
        1.2.1 Set Clear Goals -----  
-- 3  
        1.2.2 Long Term Goals -----  
-- 3  
        1.2.3 Short Term Goals -----  
--- 4

2.0 Sustainability -----  
--- 4  
    2.1 Communication -----  
--- 4  
    2.2 Team Investment -----  
--- 5  
    2.3 Local School Investment -----  
-- 5  
    2.4 Local Community Investment -----  
-- 5  
    2.5 Mentoring -----  
--- 6  
    2.6 Collaboration Resources -----  
- 6

3.0 Project Based Learning -----  
--- 6  
    3.1 What is the Teaching Method? -----  
-- 6  
    3.2 Curriculum -----  
--- 7

4.0 Cost -----  
---- 7

5.0 Sending Technology -----  
-- 8  
    5.1 Dealing with Power Needs -----  
- 8  
    5.2 Technology Training -----  
-- 8

6.0 Preparation -----  
--- 9  
    6.1 While in Country Tips -----  
-- 9

**1.0 Define Your Purpose**

Before beginning the long and rewarding process of conducting international outreach, it is crucial to define the purpose of the team’s project. It is important to understand that conducting international outreach is a multi-year process. Impacts may not be immediate or obvious, but time and commitment can lead to great long-term impact. The Combustible Lemons found that long-term commitment from the team was easier



when they identified a cause that the team cares about. In this case, the team was passionate about STEM outreach. What is your team passionate about?

**1.1 State the Mission**

The first objective, the team should accomplish before conducting international outreach is to be clear on what the team’s mission is. Having a broad goal such as, “to make a difference in the world,” is too open-ended and will be difficult to explain in detail. The Combustible Lemons mission was to promote Project Based Learning in Kenya. It is important that each individual contributing towards this project is aware of the mission statement.

**1.2.1 Set Clear Goals**

Clear and concise goals will ensure that tasks are accomplished at an efficient rate. It is also important that there are both short and long term goals. A system that is easily implemented is creating goals for the next day, week, month or year. Goals should be reviewed often and progress should be tracked. One way to track a project includes using a Gantt Chart.

**1.2.2 Long Term Goals**

The first step is to set a long term goal, which should span one to three years. When setting long term goals, think about the intended level of investment, (see figure one).

Example Goals:

- Establishing a solid communication network
- Donating 12 NXT kits

<b>Levels</b>	<b>Work Involved (Combustible Lemons Example)</b>	<b>Estimated Time Until Goal</b>	<b>Estimated Cost</b>
<b>1</b>	Mentoring	Once a month	Free
<b>2</b>	Donating Resources	4-8 Weeks	Materials/Shipping - \$200-\$300
<b>3</b>	Mentoring & Donating Resources	10 Weeks	Materials/Shipping - \$200-\$300
<b>4</b>	Mentoring, Donating Resources, & Train-the-Trainer Program	20 Weeks	Materials/Shipping - \$200-\$300
<b>5</b>	Mentoring, Donating Resources, Train-the-Trainer Program, and Mentoring Trip	1-2 Years	\$3,000 Per Person
<b>6</b>	Mentoring, Donating Resources, Train-the-Trainer Program, Multiple Trips (Sustainable Relationship)	2-3 Years	\$3,000 Per Person

### **1.2.3 Short Term Goals**

After setting the long term goals, creating short term goals is now necessary. Short term goals typically span a day, a week, or a month.

Example Goals:

- Develop a hands-on lesson
- Research materials to be used for a specific lesson
- Get 2 NXT Kits donated per month

## **2.0 Sustainability**

If the international outreach project is sustainable, the team will make a larger impact. They should be sure to think about how the project will be sustainable for future years. Factors that affect sustainability include communication and investment.

### **2.1 Communication**

Communication is critical in the beginning of the project and while sustaining an outreach initiative. Here are some points to consider:

1. Establishing a communication process including a point of contact.
2. Be aware of time zone differences.
3. Communication should begin with a face-to-face meeting.
4. If a face-to-face meeting is not possible, consider these alternative methods: Skype, Google Hangout, FaceTime, a phone call, social media, and email.
5. Be aware when choosing a method of communication, as there may be some technological barriers, such as poor bandwidth for video conferences.

### **2.2 Team Investment**

While determining the level of investment, the team and its individual members should carefully consider the intended level of investment. Make sure your team's resources (time, funding, materials, motivation, etc.) will support your intended level of investment.

### **2.3 Local School Investment**

Teams affiliated with schools, may be able to leverage when working on international outreach. Some schools pay clubs and organizations to clean-up after athletic events. Other ways to get the school to invest in the project, may include talking to school administrators, the school board and the school foundation. Teams may need to get approval from school officials before moving forward with the project.

## 2.4 Local Community Investment

There are many ways for the community to be involved in the project. Fundraising is a way to bring the community into the project; examples include a Trivia Night, a Car Wash, or Spaghetti Dinner / Spirit Nights at local restaurants. Talking to local philanthropic groups such as the Optimist, Rotary, Lions Clubs could lead to financial support as well as other connections. Another way of getting support from the local community is to seek sponsorships and grants from businesses.



Notes about donations:

- Donations may be financial, resources, time etc.
- All sponsors that donate to the team should be recognized for their contributions.
- When soliciting donations, make sure to be clear about the purpose and how the donation will be used.
- Volunteering in the community as opportunities arise demonstrates gratitude to the community for all of their support.

## 2.5 Mentoring Trips

Traveling can benefit the project as well as the team in many ways.

Benefits include:

- In-person mentoring
- Deeper understanding of challenges
- Learning how to help them more effectively
- Better communication
- Team bonding

## 2.6 Collaboration Resources

When considering international outreach, the best approach may be to collaborate with another team. Collaboration can lead to a larger base for fundraising and ideas. The Combustible Lemons launched the NXT Repurpose Project in 2013, which invited teams

to donate NXT kits to be repurposed in Ghana and evolved to Kenya. The Patronum Bots, Team #5972 from East Troy, WI donated several NXT kits that were donated to Kenya.

### **3.0 Project Based Learning**

In many countries around the world the primary teaching strategy is the “chalk and talk” method. This consists of a teacher copying notes onto a blackboard and the students copying the same notes onto paper. Project-based learning provides an alternative form of education. The students are given a hands-on project to experience the concepts first-hand. The Combustible Lemons found that each country they have worked have used the “chalk and talk” method. The key to implementing project-based learning successfully is to work with the teachers so they are able to impact students.

#### **3.1 What is the Teaching Method?**

There are multiple methods of delivery for the curriculum.

Examples include:

- Written Tutorials
- Video Tutorials
- Virtual Meetings
- Seminars
- Workshops

#### **3.2 Curriculum**

The Combustible Lemons were committed to a sustainable project. Besides sending the NXT kits to do Project Based Learning, they also developed a curriculum to give to the teachers so they could go more in depth with their students.

Tips for developing curriculum:

- Research existing curriculums
- Know your target audience
- Test the curriculum before implementing
- Do not plagiarize



### **4.0 Cost**

Project costs will vary. The Combustible Lemons learned a number of things when dealing with Ghana. First was shipping; it was expensive and the contents were not safe using the regular parcel service. The team developed a relationship with a gentleman who was from Ghana and was traveling to and from Ghana for school. The gentleman took a suitcase with him when he returned to Ghana. This was done three different times at a cost of extra luggage. Second was technology; the school in Ghana did not have electricity or computers, allowing the team to fundraise for these as well.

**Sample Budget - Donations Sent to Ghana**

<b>Expenses</b>	<b>Cost</b>	<b>Suitcase</b>	<b>Sub-Total</b>
Shipping Donations	\$200	3	\$600
Solar Backpack	\$250	1	\$250
Computer	\$200	1	\$200
<b>Grand Total</b>			<b>\$1,050</b>

The Combustible Lemons traveled to Kenya in 2016. The team spent two weeks teaching Project Based Learning to students and teachers. The budget below, is an example of the approximate costs to send 7 students and 2 adults to Kenya.

**Sample Budget - Traveling to Kenya**

<b>Expenses</b>	<b>Cost</b>	<b>People</b>	<b>Sub-Total</b>
Airfare	\$1,500	9	\$13,500
Ground Transportation	\$500	9	\$4,500
Lodging	\$500	9	\$4,500
Meals	\$500	9	\$4,500
Miscellaneous	\$250	9	\$2,250
<b>Grand Total</b>			<b>\$29,250</b>

**5.0 Sending Technology**



When sending technology internationally, research the applicable laws. It works best to have a trusted source to transport donations.

### **5.1 Dealing with Power Needs**

In the United States power is relatively reliable and accessible. This is not true in every single country. When the Combustible Lemons started working in Ghana, they had no idea of what to expect. There were several issues that had to be addressed to make the project successful.

Problem - Closest power source to school was 2-3 km away

Solution - Solar Powered Backpack

The team contacted Voltaic Systems about power needs and the project that was being conducted. Voltaic System supported the effort by offering a large discount.



### **5.2 Technology Training**

If the outreach project involves technology education, here are some things to consider:

- The technology may seem complicated to people who are not familiar with project based learning or alternative teaching methods.
- If the team is planning to travel to the location, try to send the technology before the trip and begin training them on the basics; Tools such as videos and virtual meeting can be used to aid in training. This will allow more of the trip to be spent teaching more complicated concepts.

### **6.0 Preparation**

Tips for a successful mentoring trip:

- Working with someone who has lived in the area can help the team develop realistic expectations for the trip.
- Travel the first time with someone who has been there before.
- Do your homework! Research the culture.
- Get passports early
- Get Visa (if required) early
- Check which immunizations are required
- Bring Crisp Large Bills (To get better exchange rate)

### **6.1 While In Country Tips**

Traveling to an unfamiliar place, can be overwhelming. Here are a few tips.

- Be Flexible
- Bring Toiletries (Toilet paper is an example commonly forgotten)
- Be Flexible
- Stay Positive
- Be Flexible