Workshop Toolkit

Guidelines and tips for hosting a Technovation workshop
Planning
Workshop guidelines

Technovation Launch Workshops are typically 4-hour events. The goal is to introduce students and mentors to the Technovation program and to each other in a fun setting. During the workshop, participants will brainstorm techniques to identify a problem in their community for them to solve, learn to create a paper prototype of a mobile app solution, and then experience programming an app with App Inventor. The workshop helps set the stage for collaboration between students and mentors throughout the season.

Launch Workshops are great events to provide a program/curriculum for registered and interested students, mentors and parents. It is also an opportunity to connect with and involve local companies/organizations to support your program.

If you are planning to organize a Launch Workshop, please add the date and other details here¹, so that we can list it on our website.

Following are steps you can take while planning a workshop.

1. Find a workshop co-leader. We recommend that Student Ambassadors, Master Educators, and Regional Ambassadors partner together where possible to lead a Technovation Launch Workshop.

2. Locate a venue. Once you have found people to help lead the workshop, you need to find a space to host it. Try reaching out to local tech companies, libraries, schools, universities, or groups like the Society of Women Engineers (SWE), the YMCA, Boys and Girls Clubs, and local youth organizations to see if they can donate space for the workshop.

¹ goo.gl/DQbgu3
3. **Gather workshop necessities.** Once you have a potential space and date, you will need to ensure that you'll have access to the following resources:

4. **Spread the word.** You can use this [flyer template](#) to help invite students and spread the word about the Technovation Launch Workshop.

5. **#Technovation.** Prepare for taking and sharing photos from your event. You can post these to the [Technovation Facebook](#) or [Twitter](#) using #Technovation. If you have enough computers, you can have a live Twitter feed and display the #Technovation tag so that teams can see what others are posting in real time. You can ask them about their experience learning how to code for example, or have them ask questions in this way. You can give a prize for best tweet to encourage teams to share.

6. **Thank the host.** You can follow up with a thank you note to the and hosts or sponsors who helped support the event.

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1. goo.gl/ftdI5A
2. facebook.com/TechChal/
3. twitter.com/technovation
Sample Technovation Launch Workshop Schedule

This sample schedule is meant as a guide, rather than a mandatory format, and pairs with this presentation template\(^1\).

**Part 1: Technovation Introduction**

10:00 **Slides 1–3** Lead through the objectives of the workshop and introduce these guiding questions:
- What is Technovation?
- What time commitment does it involve?
- What opportunities does the program provide?

10:05 **Slides 4–5** Give an overview of Technovation:
- Become part of a community—innovators and not just coders. Show CodeGirl teaser about program.
- Season runs October 2016–July 2017

10:10 Introduce guest speakers. Ask Student Ambassadors or previous team members to briefly discuss their experience.

10:20 **Slide 6** Show pitch videos from teams that have participated in previous Technovation seasons if available. Alternatively, you can use one of the 2016 finalist pitch videos from **Junior\(^2\)** or **Senior\(^3\)** division teams.

**Part 2: Problem Identification and Brainstorming**

10:30 **Slide 7** Introduce the following guiding questions:
- What are the problems that you are passionate about solving?
- How can we use mobile app technology to help?
- How do we make that happen?

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\(^1\) https://goo.gl/PSRLkr

\(^2\) https://goo.gl/7CdVll

\(^3\) https://goo.gl/m1hYWV
10:35 **Slide 8** Begin identifying problems to solve. Ask students to take 5 minutes to brainstorm and write down community problems that are important to them on post-its. There are no good or bad ideas and they will not be judged. They can do this individually, and each person can write one problem per post-it, as many as possible.

10:45 Ask participants to stick post-its to a wall one by one. Talk together as a large group about what they have all written down and then organize the post-its into categories. Ask them what categories they see. Are there any trends or patterns? Make note of responses that are broad (like environment, for example) versus responses that are narrower, like a drought, or climate change, or any subject that fits within.

10:50 **Slide 10** Ask each team to draw four quadrants on a large piece of paper. They should identify 1–2 sentences or images that:

- **1st Quadrant**: State of explain the chosen problem. *Teams need to agree on what problem they are solving.*
- **2nd Quadrant**: Explain why the problem is important, or tell stories that illustrate why.
- **3rd Quadrant**: List who is affected by the problem.
- **4th Quadrant**: List tasks that could help the user solve the problem, and which could be included in the app.

11:30 **Discussion** Asks teams to share how they answered the questions in each of the quadrants.

**Part 3: Lunch and Discussion** Discussion is optional.

11:45 Ask a woman who works in the tech industry to lead an informal discussion with teams about her experience and the need for diversity in tech and business. Some guiding questions to ask are:

- What is it like to work in the tech industry as a woman?
- What kinds of tech jobs are available?
Part 4: Make a Paper Prototype

12:15  **Slide 11–12** Lead a discussion, asking:
- What is a prototype?
- How do they help understand users and their needs? *We use them to test out ideas and to make the interface better.*
- What are some examples of prototypes? Can they name any?

12:25  **Slide 13** Introduce the paper prototype activity. Teams use printed templates to create an app wireframe, or 1-3 sketches of an app that show what each screen looks like and how the user would navigate them. Teams should:
- Label key features
- Carefully consider how a user will navigate between parts of the app.
- Be prepared to discuss how your team’s idea is different from already existing ideas. What makes it innovative?

12:45  **Slide 14** Ask teams to share their prototypes and encourage them to ask each other questions.

Part 5: App Inventor

1:00  **Slide 15-16** Watch an discuss Interview with Hal Abelson and Youth Radio’s Asha Richardson about App Inventor. Ask the following guiding questions:
- What is computer science and code?
- How does technology influence your daily life?
- How can you make a positive impact through mobile technology?
After the discussion, teams should take away two important points:
- Anybody can learn to code
- Coding can have a positive impact on the world

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1  https://goo.gl/ALrNvy
1:10  **Slides 17-22** Have everyone login to App Inventor (Google accounts should be pre-arranged). Explain how to make a new projects and the interface of App Inventor, as shown in the slides or in onscreen demonstration that you lead.

1:30  **Slides 23-43** Walk through the Talk to Me tutorial and explain each block used. After creating the application, use android devices to run the application.

1:45  Ask teams if they’ve seen a Talk to Me feature in an existing apps. How can they make it better?

**Part 6: Wrap Up and Next Steps**

1:50  **Slide 44** Lead a concluding discussion, asking these guiding questions:
- In what ways have your views on technology changed?
- What was the hardest part of the workshop? The most fun?
- What mobile applications do you want to build?

1:55  **Slide 45** Show girls the Technovation website and App Inventor tutorials. Review the program timeline and encourage girls to participate in Technovation. If they liked the workshop, they should find a time to meet with their team and register at [technovationchallenge.org](http://technovationchallenge.org).
Workshop Checklist

Use this checklist as you plan to make sure you have everything you need for a successful Technovation Launch Workshop.

Technical Needs

☐ Facility with reliable WiFi access. Any websites you plan to use should be tested in advance, especially App Inventor.mit.edu
☐ 1 computer for every 2–3 students, or have them bring their own laptops
☐ Android mobile devices to test App Inventor apps in real time
☐ An audio/visual setup with a projector and speakers

Material Needs

☐ Enough seating and tables for those who will be attending
☐ A whiteboard, chalkboard, or paper
☐ Post-its
☐ Markers
☐ Snacks. Your hosting venue may be able to help provide lunch or a snack, or you can ask students to bring a bagged lunch.

Pre-Event Tasks

☐ Make sure there is WiFi access
☐ Make posters with the WiFi network, login, and password, and #Technovation
☐ Confirm number of participants and create a sign-in sheet
☐ Print photo release forms
☐ Ask a volunteer to take photos
☐ Reach out to volunteers and mentors to attend. Assign responsibilities and explain what will happen at the workshop.
☐ Find a guest speaker to lead the Lunch Discussion
☐ Send a reminder email to students and mentors who have expressed interest or have registered for Technovation in your region
Event Tasks

- Arrive at least 30 minutes early to set up technology: computer, internet, projector
- Give last minute instructions to volunteers. Remind them to walk around and help students, or arrange for them to work at certain tables.
- Post the WiFi access information and #Technovation Twitter signs around the room
- Set up a sign-in table
- Optional Set up a Twitter live feed for the event so students can see their posts

Post-Event Tasks

- Send a thank you note or email to participants, volunteers, and all sponsors
- Encourage teams to register at technovationchallenge.org
- Email your Regional Ambassador with information about attendance at the event, pictures, and feedback