

Volunteer Descriptions

The girls coming to Lincoln Laboratory would not normally be exposed to engineering. As a volunteer, you will mentor girls in the local area to write their first line of code, build a wearable circuit, and explore manufacturing techniques. They will not only discover how engineering is applied, but also that engineering is multi-faceted, creative, and fun.

Event schedule:

Please show up 30min. before your shift except if you are on the Set-up team.

Time	Description	Location
7.30-8.30am	Set up	MITLL Cafeteria
8.30-9am	Check In	MITLL Cafeteria
9-9.30am	Introduction, Ice breaker, Overview of day, What is Engineering?	MIT LL Cafeteria
9.30-10am	Mechanical Design with Katy Olesnavage	MIT LL Cafeteria
10-11am	Design bracelet (Group 1)+ SNACKS	MITLL Cafeteria
10-11am	Tech Innovation Lab Tour (Group 2)	TOIL
11-12pm	Design bracelet (Group 2) + SNACKS	MITLL Cafeteria
11-12pm	Technology Innovation Lab Tour (Group 1)	TOIL
12-1pm	Lunch and speaker, Mike Gibson	MITLL Cafeteria
1-1.30pm	Intro to Programming and Circuits, Gavin Lund	MITLL Cafeteria
1.30-3.30pm	Wearable Electronics lab	MITLL Cafeteria
3.30pm-4pm	Closing Remarks, Reflection, and Raffle	MITLL Cafeteria

Volunteer Descriptions

1. **Set up (7.30-8.30am)**
Set up AV equipment, check in desk and materials, etc.

2. **Check in (8.30-9am)**
Greet girls at check in table, collect forms, answer questions, check attendance

3. **Mechanical Design- Solidworks (10-Noon)**

Girls will receive instruction packets for building bracelet in Solidworks, provide guidance. Instruction packets will be posted Dec. 5th. Prepare on your own time, but for assistance and/or company, come to a preparation session (RSVP or disregard according to Outlook invite).

4. Electrical engineering and coding (1.30-3.30pm)

Girls will receive Scratch tutorials, help them get through the exercises; girls will build and program the LED Firewalker project from Arduino. Help them through the directions. Instruction packets will be posted Dec. 5th. Prepare on your own time, but for assistance and/or company, come to a preparation session (RSVP or disregard according to Outlook invite).

5. Clean up (4-4.30pm)

6. Finish instruction packet for Solidworks (Completed by Dec. 5th)

7. Security Liason (Completed by Dec. 5th)

Agree on route to TOIL lab, print out maps for escort volunteers, send security girls and volunteer list

8. Refreshment chair (Food ordered by Dec. 5th)

Order lunch and waters, coordinate the volunteers for the lunch set up

9. Raffle chair (Collected by Dec. 11th)

Collect items needed for the raffle, print out names of girls

10. Miscellaneous Preparation (Dec. 8th, 11th, 12th during lunch- see Outlook Invite)

Download software onto laptops, solder LEDs to Arduino boards, cut Velostat, print instruction packets

MIT OpenCourseWare
<http://ocw.mit.edu>

RES.2-005 Girls Who Build: Make Your Own Wearables Workshop
Spring 2015

For information about citing these materials or our Terms of Use, visit: <http://ocw.mit.edu/terms>.