

Membership Application

Concord Academy Summer Camp



Builders age 8 – 18 ... We want you!

Join the Build-It-Yourself crew of builders and evolve your passion for art and engineering. Build with art and engineering students from well-known schools, including MIT, Cornell, Mass Art, and Harvard.

Goals:

- 1. Develop a portfolio of projects demonstrating fluency in art, engineering, and technology.
- 2. Think creatively.
- 3. Exercise problem-solving techniques.
- 4. Present ideas clearly, concisely, and convincingly.

Level Up Programs:

Single Project	Member	Intern
Eight 50-minute workshops	Forty 50-minute workshops	Forty 50-minute workshops
Up to 12 builders/group	Up to 12 builders/group	Up to 4 builders/group
8-12 years	8-12 years	13-18 years
Led by art and engineering students from well-known schools.	Led by art and engineering students from well-known schools.	Led by art and engineering students from well-known schools.
Select from 30 scheduled, standard BIY projects. The goal is to spark a passion for art, technology, and building.	Members select from 30 scheduled, standard BIY projects. The goal is to evolve a passion for art, technology, and building.	Elite Builders will teach, join BIY product development teams and present BIY projects at conferences. The goal is to develop a portfolio of projects and experiences to help interns get into the colleges of their choice.
\$100	\$400/year	\$2,500/year

Build-It-Yourself

Application (Ages 8 - 18):

Please send an email to support@build-it-yourself.com with the following information:

Please copy or take a picture of this page and send it to: Info@build-it-yourself.com Or you can answer the 8 questions in an email.

Time Commitment:

Members meet in our Webcast room for one hour weekly on Saturdays, Sundays, or weekday evenings. On average, members may spend 2+ hours per week in BIY webcast meetings and on assignments.

The Culture:

The Build-It-Yourself Laboratory is run like a college research lab.

- 1. Builders must apply to join our programs.
- 2. There is no homework. There are goals.
- 3. There are no cookbooks. Builders are encouraged to learn basic tools and then apply these tools in creative ways to build unique solutions.
- 4. There are no 'teachers.' There are project leaders and mentors.
- 5. There are no rules providing you respect your teammates.

It should be expected that not all kids will thrive in this environment.

Member (8-12 Yrs)

Parts, Tools, Supplies, and Software:

PowerPoint (Google Slides, WPS, Keynote), Minecraft, Blender, Scratch, Glue Gun, scissors, ruler, tape, cardboard, colored printer paper, premium quality junk.

Projects:

Set up your Lab, Flying Machines, Chain Reaction Machines, Scratch Games 101-102, Minecraft 101-104, Animated Cartoons, Emojis 101-102, Mechanical Garden, Money Machines, Website Design, Time Machines, Experimental Theater, Scratch Voice Recognition, 3D Graphics, Digital Music 101-102,

Skills Exercised:

Communication, Graphics, and PowerPoint Presentation Design

- Present ideas clearly, concisely, and convincingly.
- Learn pixel and vector drawing tools.
- Apply measures of effective, creative graphics.
- Create animated gifs.
- Design 3D graphics.

Problem-Solving

- Define the problem and the goals.
- Research.
- Work with a team.
- Break a solution into simple parts.
- Document.

Programming

- Storyboard a user interface.
- Exercise 5 program primitives.
- Modularize code.

Website Design

- Measure attributes of successful websites.
- Learn internet infrastructure and terminology.
- Design information architecture and efficient, intuitive navigation.
- Learn HTML and CSS.
- Follow professional file management guidelines.
- Learn computer hardware and software architecture.

Mechanical / Robot Design

- Integrate 5 simple machines.
- Test the physics of flight.
- Exercise modular construction.
- Build sensors.
- Build motion modules.
- Build structural modules.
- Program microcontrollers.
- Learn basic circuit design.

Intern (13-18 yrs)

Parts, Tools, Supplies, and Software:

PowerPoint (Google Slides, WPS, Keynote), Text Editor (HTML. CSS, JavaScript, MySQL, PHP), Blender 3D, Audacity, Gimp (Photoshop), Glue Gun, BIY Arduino Construction System (\$100)

Projects:

Create a lab book, personal website, and multimedia advertisement. Join a BIY development team. Join the BIY TA team. Present BIY inventions at conferences.

Skills Exercised:

Communication, Graphics, and PowerPoint Presentation Design

- Present ideas clearly, concisely, and convincingly.

- Use pixel, vector, animation, audio, video, and 3D drawing tools.
- Apply measures of effective, creative graphics.
- Teach.

Problem-Solving

- Define the problem and the goals.
- Research.
- Work with a team.
- Break a solution into simple parts.
- Document.
- 4D project management process.

Web site design

- Measure attributes of successful websites.
- Learn internet infrastructure and terminology.
- Design information architecture and efficient, intuitive navigation.
- Learn HTML and CSS.
- Learn JavaScript, MySQL, and PHP
- Follow professional file management guidelines.

Programming

- Storyboard a user interface.
- Exercise 5 program primitives.
- Modularize code.
- Learn computer hardware and software architecture.

Mechanical / Robot Design

- Exercise modular construction.
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