

Intel® Future Skills Project Launch Guide

Welcome

Innovation is about so much more than learning new skills—it is also about learning new mindsets. Since its inception, the Intel Future Skills program has worked toward the same goal: creating powerful experiences where youth can build confidence through open-ended, problem-based engineering challenges.

In our projects, you will be challenged with hands-on, real-world innovation activities that will help you to think differently, fail fast, and develop a growth mindset. Soon you will be well-equipped to think creatively and solve future problems quickly.

So, dive into our process. Learn to dream, draw, and build your way to a new and more powerful innovation mindset, because your Future Skills start now.



GETTING STARTED:

All of the projects in this guide are designed to be flexible and easy to carry out. They can be run in small groups or in traditional classrooms, for team building or for innovation acquisition. You can even complete them individually if you so wish.

- 1** Pick a challenge project from one of our five categories (see “Category Overview”).
- 2** Invite your family, friends, peers, or colleagues to participate in the challenge project with you (see “Places to Innovate”).
- 3** Prepare your space (see our “Design Fort Challenge” for further insights).
- 4** Read the challenge statement, watch our Project Intro and Inspire-To videos, and get an overview of your challenge.
- 5** Start to innovate by walking through our easy-to-follow project steps: Dream It, Draw It, Build It, Share It, Expand It.
- 6** Iterate on your solution, dig deeper, or pick a new challenge project to explore.
- 7** Repeat this process, learn, and become more innovative as you participate in new challenges.

PLACES TO INNOVATE:

We have designed the Future Skills Challenge Projects to be used at home, at school, or in a community setting. Consider the following options to best use our guides.

AT HOME	AT SCHOOL	IN YOUR COMMUNITY
<p>With Your family: Innovation happens when different viewpoints “rub shoulders,” so to speak. Your family is a great place to start.</p>	<p>In Groups: For most projects, we find that groups of four are ideal. This way everyone gets to be involved without slowing down the ideation.</p>	<p>In Clubs: How about digging into design thinking and innovation by starting a weekly Future Skills Club? This is a great way to learn, create, and have fun together!</p>
<p>By Yourself: If needed, feel free to jump into our challenge projects independently. Just make sure you share your results with others.</p>	<p>In Pairs: Some projects can be done in pairs but may take longer. Be sure to review the steps to confirm this will work for your time frame.</p>	<p>In Classes or Camps: Combining a few of our project guides into a half-day class or camp is a wonderful way to experience the power of Intel's Future Skills program.</p>

PICKING YOUR PROJECT:

Each project is sorted into the following sections so you can easily make decisions for your group:

- **CATEGORIES**
Don't know where to start? Try picking from our categories: Tinkering, Skill-Up, Design, Global Issues, and Innovator (more information in the Categories box to the right).
- **DIFFICULTY LEVEL**
Each project has a Beginner, Intermediate, or Advanced difficulty level.
- **TIME RANGE**
We've done our best to give the average time range for each project. However, exact times may vary based on age and on how deep participants want to go.
- **TOOLS AND MATERIALS**
Our projects use readily-available materials as much as possible. You can find most tools lying around or order them using our materials purchase link (included in each guide).
- **AT-HOME SUBSTITUTIONS**
Stuck at home? Well, we are here to help. Each guide features a short section to help you find relevant substitutions for at-home use.



CATEGORIES:

The Future Skills program is all about developing new mindsets as you walk through each theme-based challenge. It's about collaboration, human-centered design, and failing fast so that you can learn from your mistakes. To this end, we've divided our challenges into five real-world categories:

TINKERING

Learn through playful exploration.

SKILL-UP

Complete projects to hone your skills.

DESIGN

Dig deep into design thinking and create with purpose.

GLOBAL ISSUES

Work to solve real-world problems and help others.

INNOVATOR

Create an innovative, “uniquely-yours” product or system.

TIPS FOR USING THE PROJECT GUIDES:

- **It is best to watch the Project Intro and Inspire-To videos before beginning each project.** Simply scan the QR code with your phone camera to open and watch the videos.
- **Use the design thinking process whenever possible.** Each project features a “Dash of Design” section to help you make your projects more authentic and useful.
- **Look for the built-in timestamps to help track your progress.** Times are merely an estimate but should be close for most participants.
- **Fail often and fail fast.** Remember, your project is not all about the finished product—it is just as much about the process. Aim to fail fast and learn from your mistakes.
- **You are never done.** Continue to iterate even after the project comes to an end. Use the “Expand It” and “Helpful Resources” sections to take your making to the next level.

“Creativity is intelligence having fun.”

— Albert Einstein

INNOVATION FOR ALL:

For many, innovation is a nebulous word that often conjures up magical—or even mystical—images. (Think pictures of creative geniuses working a whiteboard or using yarn to connect abstract ideas, like a scene from *A Beautiful Mind*.) We strive to emulate those geniuses, so we purchase loads of Sticky Notes, and we invest in standing desks, bean bags, and foosball tables in hopes of cultivating an innovative environment.

These tools will help our creativity flow like a river, right? But far too often, it just doesn't flow.

That said, what if the innovation process could be broken down into smaller steps? What if we could learn to make creative leaps when the time is right?

The Future Skills projects offer just that—a set of innovative thinking strategies, methods, and theme-based projects that will help you unleash your creative side while inventing new items that solve real-world problems.

So, decide on your first project, and start your new journey toward innovative thinking and doing. Intel's Future Skills Project Challenge guides are just the first step.

When you are finished, feel free to email us with questions (or to share your results) at: IntelFutureSkills@intel.com