**Brainstorming Main Project Ideas**

Coming up with an exciting but achievable project can be very challenging. If your members already have a clear idea for a project, congratulations! That's great. They can start working on their designs and prototyping them. If they don't know what they want to do, we've collected a few strategies that might get them going.

See what's out there. To get your idea generator going, it helps to look at as many examples as possible of what other people have done. You can try to replicate the project exactly, but more likely you will add your own twist along the way. Some project sharing-sites most popular with Young Makers include:

- ***Instructables***. This vast database of thousands of projects submitted by a large user base contains a nearly inexhaustible resource of step-by-step instructions for a million different projects of all difficulty levels. You can find both simple projects and deeper expertise when a member gets stuck on a project. You could spend half a lifetime browsing this site. (And don't forget to contribute your project to the site after you've finished it, in order to help others.)
- ***Maker Faires of the past.*** Maker Faire booths, both what Makers have shared at Maker Faire and what we have previewed at events where we promoted an upcoming Maker Faire, also offer a lot of great ideas for projects. Browse nearly 4000 projects that have exhibited at previous Maker Faires in the Bay Area, Austin, Detroit, and New York City. http://makerfaire.com/search.csp
- ***MAKE magazine***. Every edition, filled with detailed project ideas and plans, is a well-spring of ideas. Aaron Vanderwerff used his complete set of Make magazines, distributing one issue to each student in the class and asking them all to choose a project that appeals to them. As of late 2011, Make magazine has published 27 volumes. One note of caution: a few of the issues are out of print, so share your copies of the magazine carefully.
- ***Makezine blog***. Each day a number of posts describe thought-provoking projects, sometimes with links to instructions. The comments made by readers can also be very helpful.
- ***Make Projects.*** A great source for starter projects as well as more ambitious ones, this user-contributor DIY project-sharing site has projects from MAKE magazine and its readers.

Go window-shopping. Look at the wacky inventions in SkyMall magazine, found in the seat-back pocket of many airlines. If you know someone going on a flight, ask them to pick up some copies of SkyMall for your club. Your members may get a kick out of seeing what silly inventions people buy at high altitudes. You may also consider sites like Etsy and eBay, two sites rich with unconventional ideas from creative, resourceful people who sell vintage and handmade objects.

Go shopping for stuff. An art teacher once said, "Half of art is shopping." You could take your members on a field trip to an art, hardware, electronics, plastics, fabric, dollar, or thrift store. If you can't go to a real-world store, poking around online might work too. You can use your shopping trip as a time to talk about budgets and the hard task of finding supplies for projects. At the store, your members may find odd things to hack together, or new materials they hadn't considered. Point your members to the site IKEA Hackers http://www.ikeahackers.net/ for ideas for repurposing materials.

Cut and collect. Disney Imagineers cut out a collection of images they find interesting, then they start arranging them in pairs or triplets to see if that triggers any interesting hybrid ideas.

Play with something new. Stimulate ideas by playing with a new material. Mylar, electroluminescent wire, shape-memory alloy, ... any new material (or even an old material used in new ways) can jolt your imagination. Spend a long time with the material, experimenting in as many different ways with it as you can imagine, or look to see what others have done with this material by searching online.

Figure out what you want to learn. Another strategy is to pick a set of skills that you'd like to acquire (such as knitting, soldering, or welding), or a medium that you'd like to experiment with (such as wood, metal, or ceramics). Once you've narrowed it down, there are a few ways to get started:

- Don't hesitate to ask questions of people who have the knowledge you're seeking. People are generally very happy to share what they know and are happy to help. If you find a Maker who has exhibited at Maker Faire and who has skills related to your project, they may be available to advise you—sometimes they include their email addresses on their project pages, or just tell us who you're trying to get in touch with and we'll try to make the connection.
- See what others have done—often the enthusiasts will document their passions with great detail, enough to recreate and learn from them. Do web searches related to the skills and media you've been working

with. You'll very likely find countless blogs, websites, and organizations related to your interests.

- Go buy some of the materials used in the medium you are interested in and tinker with them.

Do what you love. Focus on things you like, such as music, video games, or holidays. Halloween and Christmas provide great opportunities for Makers. For Halloween you can make props for your yard or interesting costumes. For Christmas you can make wonderful decorations for your tree, your home, or your yard.

Have lots of Ideas. Dr. Linus Pauling famously said that the best way to have good ideas is to have LOTS of ideas. That is, create a list of as many ideas as you can, then start focusing on the ones that appear promising. Eventually you'll winnow the list down to the good ones. Don't be surprised if only a fraction of your initial ideas turn out to be good. That's normal.

Some design educators swear by IDEO's seven rules for brainstorming. These four are most relevant to brainstorming Young Makers' projects: defer judgment, encourage wild ideas, build on the ideas of others, and go for quantity. To see all the rules explained, visit IDEO's writeup on the seven rules.
http://www.openideo.com/fieldnotes/openideo-team-notes/seven-tips-on-better-brainstorming

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