

**Pacific Library Partnership
Innovation and Technology Opportunity Grant Program**

Due Wednesday, October 31, 2012

Please provide the following information in a Microsoft Word document. Send the completed form to Linda Crowe, PLP Executive Director, 2471 Flores Street, San Mateo, CA 94403 or email crowe@plsinfo.org.

1. Title of Project *Maker Mountain View – Mobile & Modular Maker Kits*

2. Library/Committee
applying for funding *Mountain View Public Library*
Name *Paul Sims*
Email: *paul.sims@mountainview.gov*
Mailing Address *Mountain View Public Library*
585 Franklin St, Mountain View, CA 94041

3. Amount of funding requested *\$14,926*

PLP Innovation and Technology Opportunity Grant Program

Project Name: **Maker Mountain View - Mobile & Modular Maker Spaces**

1. One paragraph project summary.

The Mountain View Public Library proposes to create a modular and mobile maker space called *Maker Mountain View* to support a culture of creation through play, exploration, and collaboration. Unlike traditional maker spaces with fixed maker tools and resources, *Maker Mountain View* would consist of maker kits called Cubes (short for incubators) that could be easily transported, relocated, and even shared with other local libraries. The *Maker Mountain View* Cubes could be set up in the community at a fair or somewhere outside the library, be left set up in a dedicated space for a period of time, set up at a local one day event at the library, or be used independently as separate individual maker events. *Maker Mountain View* would allow us to help cultivate a creative spirit in the library and out and about in the community. Imagine learning to build robots, or designing and sewing a costume, or building an object using a 3D printer at the library but also the Farmer's Market or the Art & Wine Festival or having Maker Faires with other local libraries. *Maker Mountain View*'s mobile and modular concept addresses the lack of space in libraries today as well as staffing issues associated with a dedicated maker space that would require constant supervision.

2. Explain how this project fits with the library's strategic directions.

Maker Mountain View focuses on helping the library fulfill the role of as a free, local community resource for creativity, discovery, and lifelong learning. The library has long been the provider of information in print but that role is shifting. Information is now being communicated through videos, through activities, and through each other. The information consumer is fast becoming the information creator.

Maker Mountain View would position the library as the free learning leader in the community. *Maker Mountain View* will provide the tools and resources for our community to learn, to explore, discover, collaborate and play in a variety of formats and channels. By being modular and mobile, *Maker Mountain View* extends the ideas of free learning into schools, workplaces and recreational spaces. People can learn to build robots, or design and create a costume, or build an object using a 3D printer not just in the library but in a space that might be more convenient for them. They can discover what is possible without even setting foot in the library but also understand that the library is a source for participatory learning.

3. A description of the proposed project including the population served and the demographics of that population.

Maker Mountain View will be a collection of kits, called Cubes, that each act as a specific resource for people who want to create. The library would use the grant to collect resources that will assist folks with their quest for creation and knowledge, package, and share them through a series of mini-maker faires at the library, at community events, as well as individual events.

Cubes would have a variety of tools that could be used alone or together as well as project ideas. Potential Cubes include

- Sewing Cube
- Electronics w/ Soldering Cube
- 3D Printing Cube
- Laser printing, etching and cutting cube
- Crafting Cube

Mountain View's population is 74,066, however the daytime population grows to more than 100,000 due to the tech heavy industry dominated by Google. More than half the population is between 20 and 54, and 25% of the population is between 25 and 34 with the median age of 34.6 years. 56% of residents of Mountain View live in apartments or multifamily dwellings and often lack space or finances to have tools to explore creative projects.

According to many recent studies including Santa Clara County Library's Research performed by OrangeBoy Inc, males between 25 and 54 are the least likely users of public libraries. Maker spaces in libraries may have a particular appeal to creative, technically savvy individuals between 25-54 looking for participatory learning opportunities. Maker spaces and mobile maker events through the library would appeal to the largest segment of Mountain View's population. Not only would this segment be participating in events but they could potentially become volunteers to lead programs and events. There are no existing maker spaces in Mountain View.

4. The goals and objectives of the project.

Goal 1: To provide our community with an informal collaborative learning environment and the resources to create, collaborate, explore and play.

Objective a: Create ready-to-go program kits "Cubes" that provide all of the tools and instructions needed to put on a specific Maker workshop. These kits can be loaned out to other libraries and organizations, and can be used both within the library and out in the community.

Goal 2: Community members will participate in fun hands-on projects that allow them to express their creativity and experience new technologies.

Objective a: Recruit local community experts (architects, designers, engineers) who can volunteer to lead a Maker program.

Objective b: Recruit practicum students who can help plan, organize and facilitate Maker Mountain View Open Houses and programs.

Goal 3: To share resources and knowledge with other libraries and community organizations.

Objective a: Collaborate with neighboring libraries to create a Maker resource-sharing plan.

5. The project timeline (activities).

Timeline

Activity	2013											
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Recruit/train Practicum students	X											
Recruit Community Experts	X	X	X									
Purchase/procure equipment/containers		X	X	X								
Create Maker Program kit Cubes		X	X	X								
Marketing			X	X	X	X	X	X	X	X	X	X
Staff orientation			X	X								
Plan Cube checkouts for other libraries			X	X								
Open House for the Community					X							
Monthly Maker Open Labs						X	X	X	X	X	X	X
Maker Mountain View Programs						X	X	X	X	X	X	X
Mountain View Art & Wine Festival									X			
Evaluation				X	X	X	X	X	X	X	X	X

January 2013

- Hire and train practicum students to help plan/assist with Maker Mountain View programs

January – March 2013

- Assemble team of community experts who can facilitate a Maker Mountain View program

February – April 2013

- Purchase equipment/containers
- Create ready-to-go Cubes that can be shared with other libraries or used for outreach at a school or community event

March - ongoing

- Marketing
 - Create publicity materials: flyers, posters
 - Send out press release/post to library website

March/April

- Staff orientation

May 2013

- Open House – introduce community to available equipment/experts, drop in

Beginning in May 2013

- Monthly Maker – participants sign up for an orientation of equipment lead by intern, then are able to stay and work on their own projects, registration required

June 2013

Events begin

Library begins reaching out to other libraries for partnering opportunities

Mountain View Maker Space Programs, registration required

Sample programs/workshops:

- Costume workshop (2 days), June 2013, (AnimeCon, ComiCon – July 2013)
- Build a solar powered Altoid tin iPhone charger, July 2013
- Build-a-bot, August 2013
- Intro to 3D printing, September 2013

6. The evaluation of the project.

Anticipated project output:

- 100 people will attend the Maker Mountain View Open Houses
- All six Maker program attendance will be at least 95% full
- MVPL will partner with two other Community Libraries/Organizations to make Maker Cube programs available to other cities/community groups

Anticipated project outcome: Creating this new community engagement space/platform allows our library to provide access to information, resources and technology in an active, fun-filled way that is driven by our community's curiosity. Through *Maker Mountain View*, we will be able to strengthen our ties to the community, increase our program statistics and attract a new segment of users. It will also allow us to build a community of local experts who partner with the library to facilitate peer-to-peer learning. Participating community members will experience a shift from the role of consumer to creator as they learn how to operate tools to build their own gadgets, toys and costumes.

7. The project budget.

Project Budget	Total
Staffing	\$3000.00
Equipment, Supplies and Materials	\$11,926.00
Grand Total:	\$14,926.00

Staffing

100 hours of replacement hourly staff to free up dedicated permanent Librarian/Staff to act as an intern coordinator, conduct training, facilitate the project, manage cubs, and report on performance and document activities: \$3000

5 unpaid practicum students at 180 hours each (Spring, Summer, Fall semesters) \$0

Proposed Equipment, Supplies and Materials

Cube storage				
Tool	Description	QTY	Price	Total
Containers		6	\$30	\$180
Total				\$180
Electronics				
Tool	Description	QTY	Price	Total

Soldering iron kits	40 w	6	\$12	\$72
Wire Stripper	For 22-30 gauge wire	4	\$12	\$48
Needle Nose Pliers		4	\$6	\$24
Flush diagonal cutters		4	\$15	\$60
Solder vacuum		1	\$6	\$6
Solderless Breadboard		20	\$5	\$100
Solder	1 lb spool	1	\$20	\$20
Total:				\$330
3D Printing				
Tool	Description	QTY	Price	Total
Makerbot Replicator	Dual Extruder	1	\$2199	\$2199
Plastic filament	1kg ABS 1.75mm. Any color	1	\$60	\$60
Total:				\$2259
Laser Cutting				
Tool	Description	QTY	Price	Total
Epilog Zing 24 Laser	30 watt laser with 24" x 12" cutting area	1	\$7995	\$7995
Compressor	Provides air assist	1	\$80	\$80
Total:				\$8075
Sewing Supplies				
Tool	Description	QTY	Price	Total
Sewing Machine w/ case	Brother LS-2125 Mechanical Sewing Machine	3	\$130.00	\$390.00
Serger		1	\$230.00	\$230.00
Fabric Shears		4	\$12.00	\$48.00
Embroidery scissors		1	\$12.00	\$12.00
Seam Ripper		3	\$4.00	\$12.00
cloth tape measure		2	\$3.00	\$6.00
Hand sewing needle assortment (12)		3	\$3.00	\$9.00
Heavy Duty hand needles assortment (6)	For leather & upholstery	2	\$5.00	\$10.00
Steam iron		1	\$20.00	\$20.00
Folding Portable Ironing Board		1	\$20.00	\$20.00
Crochet hook Assortment (8)		1	\$15.00	\$15.00
Leather Punch		1	\$20.00	\$20.00
Snap setter		1	\$15.00	\$15.00
Sewing awl		1	\$5.00	\$5.00
Embroidery hoops		2	\$3.00	\$6.00
Knitting needle assortment (4)		1	\$12.00	\$12.00
Pin (boxes)		2	\$2.00	\$4.00
Safety Pins		2	\$2.00	\$4.00
Cutting mat	self healing	1	\$65.00	\$65.00
Bobbins		10	\$3.00	\$30.00
Craft box		1	\$15.00	\$15.00
sewing machine needles (5 per pkg)		5	\$2.00	\$10.00
Serger needles (5 per pkg)		5	\$8.00	\$40.00
Serger blades (set)		2	\$12.00	\$24.00

Fabric marking pen		4	\$5.00	\$20.00
Fabric glue		2	\$4.00	\$8.00
Hot Glue Guns		4	\$8.00	\$32.00
TOTAL				\$822.00
Grand Total (Equipment, Supplies):				\$11,926.00