# CALIFORNIA STATE LIBRARY
## LIBRARY SERVICES AND TECHNOLOGY ACT (LSTA)

### Final Program Narrative Report
(LSTA Form 9)

#### Grant Information

<table>
<thead>
<tr>
<th>Library Jurisdiction</th>
<th>Napa County Library</th>
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</thead>
<tbody>
<tr>
<td>Project Title</td>
<td>STEM Robotics Workshops</td>
</tr>
<tr>
<td>Grant Award #</td>
<td>40-8323</td>
</tr>
<tr>
<td>Grant Period</td>
<td>September 1, 2013 through July 31, 2014</td>
</tr>
<tr>
<td>Amount of Grant Award</td>
<td>$5,750</td>
</tr>
<tr>
<td>Amount of Grant Expended</td>
<td>$5,750</td>
</tr>
<tr>
<td>Local Match</td>
<td>0</td>
</tr>
<tr>
<td>In-Kind</td>
<td>$2,100</td>
</tr>
<tr>
<td><strong>Total Amount of Project</strong></td>
<td><strong>7,850</strong></td>
</tr>
<tr>
<td>(amount expended + match + in-kind)</td>
<td></td>
</tr>
<tr>
<td>Number of Persons Served</td>
<td>139</td>
</tr>
<tr>
<td>(should not include total population of service area or potential population to be reached)</td>
<td></td>
</tr>
</tbody>
</table>

#### Project Director

<table>
<thead>
<tr>
<th>Name</th>
<th>Dawn P. Boggs</th>
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</thead>
<tbody>
<tr>
<td>Title</td>
<td>Staff Services Analyst</td>
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<td>Library Address</td>
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<td>(707) 253-4819</td>
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<td>E-mail Address</td>
<td><a href="mailto:dawn.boggs@countyofnapa.org">dawn.boggs@countyofnapa.org</a></td>
</tr>
</tbody>
</table>

This report is due on the date listed in the LSTA Grant Guide for this project. Follow this link to view the Grant Guide. [http://www.library.ca.gov/grants/lsta/manage.html](http://www.library.ca.gov/grants/lsta/manage.html)

Email this report in “word format” to lsta@library.ca.gov then mail ORIGINAL and 2 copies to:

California State Library  
P.O. Box 942837  
Sacramento, CA  94237-0001  
Attention: Fiscal Office - LSTA

**SIGNATURE:** ________________________ **DATE:** ________________________  
(Please sign in blue ink)
**Project Final Report**

A final narrative report is required on the use of federal Library Services and Technology Act (LSTA) funds following the completion of a project during each project year. The information you report will be used to complete the California State Library report of how funds were expended. Excerpts from this report may be submitted to the Federal government in their evaluation, or may be published by the State Library or shared with other institutions. Please answer all of the questions thoroughly. Please attach any reproduction copies of photographs of project activities or media produced for the project.

### Project Purpose

Include your program purpose statement here

The purpose of this project is to engage children between the ages of 7 and 10 in a Science, Technology, Engineering and Mathematics (STEM)-related subject, specifically robotics, by designing and facilitating beginning robotics workshops. These workshops are intended to spur student interest to pursue additional study in robotics and/or other STEM-related subjects.

### Project Activities and Methods

How did you accomplish the project? What were the steps involved? How did you engage the target audience?

The Library purchased 18 LEGO WeDo robotics kits to serve 18 children per workshop. Three Library staff members attended training at LEGOLand in Carlsbad, CA to learn how to build and program the robots. Staff purchased STEM-related books and materials for children to check out. 9 volunteers from the community were recruited and trained to assist the children at the workshops. Library staff has facilitated 8 robotics workshops attended by 126 children. During the workshops, the children reviewed the contents of the robotics kits, and were engaged by building and programming the robots. Parents and caregivers were also engaged, for at the end of each workshop, the children showed them the robots they created. Also, the Library publicized the workshops by sending press releases, advertising on the Library’s website and in the Library’s newsletter, and distributing flyers to public elementary schools. Copies of the publicity materials are included with this report.

### Project Outputs

What was created for the project and how much? (For instance three promotional brochures were created and 75 copies distributed; or three training classes were designed; two sessions of each were held, and 80 people were trained)

Library staff facilitated 8 robotics workshops that were attended by 126 children; purchased STEM-related, age-appropriate robotics books and materials (a list of the materials purchased is included with this report); purchased one subscription to Robot magazine; 4 Library staff and 9 volunteers have been trained to assist the children during the workshops; 1 promotional flyer advertising the workshops was created and distributed to 19 local elementary schools for distribution by grade 1 through 5 teachers (a copy of the flyer is included with this report).

### Project Outcomes (if applicable)

Please state the outcomes and the results of your evaluation.
During the workshops, the children completed pre- and post-workshop surveys to assess their feelings about STEM subjects and the workshops. When asked how they felt about the workshop after its conclusion, 80% of the respondents said they loved it, 17% liked it and 3% said it was o.k. Additionally, parents were also asked their opinions about STEM education and the workshops. Their responses have been overwhelmingly supportive of STEM education, and very positive in regard to the workshops. Moreover, the volunteers worked extremely well with the children, provided excellent feedback and suggestions for improving the workshops, and the teen volunteers in particular had the opportunity to develop leadership skills while working with the children. Moreover, circulation of robotics-related materials increased by 8.5%, when compared to robotics circulation statistics before the start of the grant term.

**Additional Project Outcomes**

Please state any additional intended or unintended outcomes and what data sources you used.

A very positive unintended outcome was the fact that I had quite an age range in volunteers, from teens to older adults, everyone got along extremely well, and there was mutual learning between the groups. Additionally, all of the volunteers had the common goal of helping the children get excited about robotics. I was truly privileged to have such a great group of volunteers.

**Anecdotal Information**

Tell us a story. Give two or more examples of how the project has helped an individual or group in your community.

Below are quotes about the project from parents of participants and, in one case, a quote from a parent of a volunteer:

"For my older child (teen workshop volunteer), I was so very happy to see a volunteer mentoring opportunity for him! His interest in robotics has rekindled, he is considering robotics as a career, and best of all this was a great opportunity for him to work patiently and kindly with younger children including effectively sharing information with them." This is exactly one of the outcomes for which I was hoping, and I sincerely hope he stays on this positive trajectory.

"I loved how excited my daughter was in showing me what she built and could do….she was so excited afterword (sic), that we had to show our video of the robot she built to all family members at our Father's Day BBQ…"

"Love it (the workshop) and would love to see a progressive series of these Lego build workshops and even would love to take it a step further, (like in Santa Cruz) where they have a film studio, and kids take their Lego builds and create a story that they can create a short story animation made of their Lego builds and learn about Game designing, animation, electronics, robotics, etc. I think my sister-in-law said, 'but they don't continue these classes for the older kids still into building that are age 14 or maybe 16'…so we should make it open to all ages so they can all learn from each other. I also keep thinking of George Lucas, and his use of computers and his educational program 'Edutopia' and wanting to know more about all that for our children."

"The Legos and software lay a good foundation for those who want to do more studying in the robotics field. [His son] has done some other work with the mechanical aspects of Legos, but not this type and not with the computer controlling it. I liked that it helped him understand how the two could be used together, since he is comfortable using his laptop and is always building things with his Legos."

"I was very impressed (after observing the robotics demonstration by her son). I didn't realize how much the computer was involved and the 'commands' were more complex than I expected. I was especially
happy to see how self-confident my son was after the class. Confidence building was an unexpected bonus. Thank you!"

“I think this robotics workshop was a great experience for the children that attended. The things my daughter put together were amazing and I know that the facilitators seemed very encouraging and helpful. My daughter tends to get frustrated easily and she had a blast at the workshop.”

"My son was very excited about his creation and proud. I think he took away a new interest."

**Exemplary Project**
If you feel your project was exemplary and others could learn from it and replicate it, please tell us why.

This project was exemplary for the following reasons: (1) the Library Director and staff are committed to and supportive of STEM and robotics education; (2) the workshop volunteers were a tremendous asset to the staff and children; (3) the children were engaged, having fun and learning simultaneously; and (4) the teen volunteers had opportunities to develop their leadership and mentoring skills.

**FEEDBACK FOR THE CALIFORNIA STATE LIBRARY ON THE GRANT PROCESS**
We want to learn and improve our grant processes. Please let us know what worked and what we could do differently to make it a better experience. Thank you!

The support and assistance I received from Janet Coles from the CA State Library was invaluable. Prior to participating in the Pitch an Idea program, I had never applied for or received a grant, nor facilitated a grant program, and Janet was very accessible and helpful from beginning to end. Thank you!