

# District Grant Report 2015-2016

(to be completed by Rotary Club and returned to <a href="mailto:district5440grants@gmail.com">district5440grants@gmail.com</a> revised Feb 3, 2014)

District Grant #1413	<b>Progress Report</b> □	Final Report X	
Rotary Club: _Rotary C	Club of Fort Collins		
Project Title: 3D Printe	r Project		
<b>Project Description:</b>			

1. Briefly describe the project. What was done and where did the project activities take place? Who were the beneficiaries?

The project provided 3D printers to two middle schools in the Poudre School District. In addition, the schools received 8 hours of training and actually assembled their 3D printer during the training. The two schools were Lincoln Middle school and Blevins Middle school. The beneficiaries were the 6 thru 8<sup>th</sup> grade students who were able to use the 3D printers to take their own designs and convert them into physical objects.

- 2. How many Rotarians participated in this project? 5
- 3. What did they do? Please give at least two examples.

  The Rotarians determined the criteria for getting a 3D printing and account of the content of the criteria for getting a 3D printing and account of the criteria for getting a 3D printing and account of the criteria for getting a 3D printing account of the criteria for getting a 3D printing account of the criteria for getting a 3D printing account of the criteria for getting a 3D printing account of the criteria for getting a 3D printing account of the criteria for getting a 3D printing account of the criteria for getting a 3D printing account of the criteria for getting a 3D printing account of the criteria for getting a 3D printing account of the criteria for getting a 3D printing account of the criteria for getting a 3D printing account of the criteria for getting a 3D printing account of the criteria for getting a 3D printing account of the criteria for getting account of the criteria for getting a 3D printing account of the criteria for getting account of the cri

The Rotarians determined the criteria for getting a 3D printer and solicited applications from the schools. They visited the schools that applied and selected 2 schools to receive the 3D printers. After the schools had been using the printers for several months, the Rotarians visited to see the results. Finally, they followed up with the school district department of education technology to ensure that the printers were receiving the proper maintenance.

4. How many non-Rotarians benefited from this project? 82 directly, 180 indirectly In the two schools, Lincoln and Blevins, 82 students benefited directly by taking a class that used the 3D printers. Another 180 students in grades 6 thru 8 had access to use the 3D printers for projects they were doing in other classes.

5. What is the expected long-term community impact of this project?

Educating our youth to be able to contribute in the 21<sup>st</sup> century is one of the most important things we can do. 3D printers get students excited about learning and they benefit from the skills they can use in the future.

6. If a cooperating organization was involved, what was their role? N/A

7. Income: Amount

Rotary Club of Fort Collins		\$3,000
District 5440		\$3,000
	T 4 I D . 4 I	\$6,000

#### Total Project Income

8. Expenditures: (number receipts starting with 1 and indicate a receipt # (s) for each expenditure)

	Receipt # (s)	Amount
TAZ 3D printer v 4.1 each \$1,646 X 2 = \$3,292	1, 2	\$3,292
Labor to assemble printers \$840 each X 2 = \$1,680	3	\$1,680
Training for students and teachers \$380 X 1 = \$760	3	\$760
Support for 1 year \$155 X 2 = \$310	3	\$310
Total project expenditures		\$6,042

9. Project score (5=strongly, 4=agree, 3= neutral, 2=disagree, 1=strongly disagree)

	Project Score	Comments
The overall project was successful	5	
The grant process worked well	5	
My interaction with partner clubs was good	5	
We achieved the results we expected	5	

10. What worked well on this project and why?

As part of the project, the teachers and students received training from the Idea 2 Product Lab at CSU on how to set up and use the printers. This got them up and running quickly.

11. What did not work well and how would you suggest improving it? After several months of use, one of the printers broke down and there was no process in place for repair. This required follow up with the school district to set up a maintenance plan.

12. How was this project publicized?

3D printed Rotary wheels were attached to the printers and a demonstration of the project will be done at the District 5440 conference on June 19 and 20, 2015.

13. (Progress report only) What still remains to be completed on this project?

#### Project Inventory

Please list all items provided in this grant that are over \$75 in value and are not expendable.

Item Purchased	Date of Purchase	Cost	Destination/ Location	Comments
TAZ 3D printer v. 4.1	9/17/14	\$1,646	Lincoln middle school	
TAZ 3D printer v 4.1	9/30/14	\$1,646	Blevins middle school	

By signing this report, I confirm that to the best of my knowledge these District Grant funds were spent only for eligible items in accordance with Trustee-approved guidelines, and that all the information contained herein is true and accurate. Receipts for all grant-funded expenditures are attached. I also understand that all photographs submitted in connection with this report will become the property of RI and will not be returned. I warrant that I own all rights to the photographs, including copyright, and hereby grant the District, RI and TRF a royalty free irrevocable license to use the photographs now or in the future, through the District and the world in any manner it so chooses and in any medium now known or developed. This includes the right to modify the photographs as necessary in the District's and RI's sole discretion. This also includes, without limitation, use on or in the web sites, magazines, brochures, pamphlets, exhibitions and any other promotional materials of the District, RI, and TRF.

Please attach all receipts or an invoice and a copy of the check used to pay the invoice. Funds over \$200 not used must be returned to the
district grants treasurer.
Certifying signature of primary contact June Salst Date: 6/10/18
Print name and Club name: Jim Epstein, Rotary Club of For Collins
Return this report to: district5440grants@gmail.com
District 5440 Grant Committee only  By signing this report, I confirm that I have reviewed the report and it meets the report guidelines specified in the Rotary Grants Terms and Conditions and the 5440 District Grant Guidelines
District5440 Grant Committee Member Signature Date





437 2185

Aleph Objects, Inc.

626 W 66th St Loveland, CO 80538-1210

Phone: Mail: 1-970-377-1111 info@alephobjects.com

Kent Johnson 2204600-6225 Printer

KENT JOHNSON 1374 CAMPUS DELIVERY FORT COLLINS, CO 80523

Total:

Tel.: +1 720-560-1936

Shipping address: KENT JOHNSON

1374 CAMPUS DELIVERY FORT COLLINS, CO 80523

Invoice address:

KENT JOHNSON 1374 CAMPUS DELIVERY FORT COLLINS, CO 80523

## **Quotation N° SO11133**

Your Reference

Quotation Date

Salesperson

**Payment Term** 

\$ 1,646.210

09/17/2014

Jason Rose

Description Tax Quantity **Unit Price** Disc.(%) **Price** [KT-PR0016] TAZ 3D Printer, v4.1, Boxed 1.000 PCE 2,194.95000 25.00 \$ 1,646.210 for Retail Net Total: \$ 1,646.210 Taxes: \$ 0.000





4482364 K. Johnson/2204600-6201

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Tel.: +1 720-560-1936

### **Quotation N° SO11376**

Your Reference

Quotation Date

Salesperson

Payment Term

09/30/2014

Jason Rose

Description Tax Quantity **Unit Price** Disc.(%) **Price** [KT-PR0016] TAZ 3D Printer, v4.1, Boxed 1.000 PCE 2,194.95000 25.00 \$ 1,646.210 for Retail Net Total: \$ 1,646.210 Taxes: \$ 0.000 Total: \$ 1,646.210

Customer picking up from here, no shipping required.

Phone: 1-970-377-1111 | Website: http://www.alephobjects.com

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School of Biomedical Engineering Department of Mechanical Engineering

> A 101, Engineering Building Fort Collins, Colorado 80523-1374 Telephone: (970) 491-7157

November 7, 2014

Jim Epstein Rotary Club of Fort Collins

Dear Jim,

On behalf of my colleagues and our students, thank you for your kind donation of \$6,000.00 to our 3D Printing Laboratory, for us to build (2) 3D printers for Blevins and Lincoln Schools. We will deliver one upgraded "Rep-rap" extrusion style printer to each school, with training and support, for \$3000 each. This fee includes everything a school needs – the fully assembled, tested and calibrated printer, labor (to make, calibrate and test it), classroom instruction time (usually two 3 to 4 hour sessions with print time during and between), email support afterward as needed and a spool of good print material to get started (one can buy cheap material and foul the devices). This is typically enough material for a dozen students to make things for at least two months. The printers incorporate some of the latest and greatest technology in the Rep-Rap platform, while minimizing cost.

Here's our cost breakdown for each printer:

Parts & Supplies	\$1,646
Labor	\$840
Training	\$380
Support	\$155
TOTAL	\$3,021

Thank you. Your kind donation will really help as we educated more young people in the amazing field of 3D printing, enhance and enrich their science and technology education, and empower them to be future innovators and creators.

Sincerely,

David A. Prawel, Ph. D.

Department of Mechanical Engineering





