



City of Hyattsville
2023 Education Enrichment Grant Program

City of Hyattsville
2023-24 Education Enrichment Grant Application

Due date: January 5, 2023

Late proposals will not be accepted

SECTION 1 – APPLICANT INFORMATION

Name: Eileen Lengenfelder

Position: STEAM teacher

School: Edward M Felegy Elementary

Email Address: [REDACTED]

Phone Numbers: School: (202) 286-1618

Amount Requested: \$499.00

Check Should be Payable To: Edward M Felegy Elementary PTA

Project Start Date: February 7, 2023 Project End Date: June 14, 2023
Not before January 2023 Not after July 1, 2023

Reminder: A final report is due by July 3, 2023

SECTION 2 – SIGNATURES

Principal's Signature: Dever A. Liburd Date: Jan. 5, 2023

Principal's Printed Name: Dr. Liburd

Applicant's Signature: Eileen Lengenfelder Date: Jan. 5, 2023

Applicant's Printed Name: Eileen Lengenfelder

SECTION 3 – DESCRIPTION OF GRANT REQUEST

Title of Project: Crane it Up!

Please attach a typed description of the grant request (three-page limit)

Description of Grant Request

Hyattsville is forever building. One piece of machinery that helps to make the tasks at hand easier is the crane. Children are fascinated by the use of this massive machine. This lab will explain how cranes have utilized the mechanical advantage of levers throughout history and in the modern world to build and construct, as well as the human role in operating cranes.

As in many robotic and automated creations, the movement of the motor matching the expected result will not be perfect the first time. Students will explore how to get different results of the crane's automated movement by changing the motor, the code controlling the motor, and adjusting the movement of the mechanical structure.

Target Population

The target population is the entire 130 fifth grade at Edward M. Felegy Elementary. A breakdown of Felegy's enrollment is:

- 91% are eligible for FARMS (Free and Reduced Meals)
- 68% Hispanic
- 29% African American
- 6% American Indian, 2% White, and 3% Asian/Native Hawaiian
- 48% qualify for ESOL services, 22% SPED

Location of Project

This project will take place in the STEAM lab at Edward M. Felegy.

Project Timeline

March 7 - March 24, 2022

During this three week period ten kindergarten and second grade classes will attend a 45 minute STEAM lab to participate in this Squishy circuit lab. This time frame will allow each group of students to spend 2 hours and 15 minutes focusing on this project. It entails not only learning about electricity, but also using their creativity to design ways to use this technology in a real life setting.

Dates	Lesson	Activity
March 7-10	The history of cranes, how cranes help to make work faster, safer and more efficient for humans. -Henry Ford and the first assembly line (faster) -Using automation to locate and destroy mines underwater (safer)	Multiple choice questions to elicit discussion about automation and how it has allowed people to do more by doing less. Cranes have played a big part in this historical growth. Build crane parts out of Strawbees. Maneuver the

	-Using cockroaches with tiny computers on them to find humans in earthquake rubble. (practical and clever)	crane manually.
March 13-17	Parts of the Micro:Bit. How they work. What each of the ports on the bottom do... Alligator clips, servo motor	Use Microsoft Makecode to light up LED lights to show their names, then a countdown. Add servo extension. Try to get the propeller to move according to the direction needed.
March 20-24	Pulling it all together. Demonstrate the goal.	Use time to work as a team to connect computers too Micro:Bit, and servo motor apparatus. Test and Improve!

Detailed budget plan

<https://strawbees.hubspotpagebuilder.com/81f11d3a3518f3e30748>

Prince George's County Public Schools

Quote created: December 20, 2022 | Reference: 2022/220-133724285

Prince George's County Public Schools
14201 School Lane
Upper Marlboro, MD 20772
United States

Eileen Langenfelder
eileen.langenfelder@pgcps.org
301.717.9506

Comments

Rasmus Carlsson - Strawbees AB

Products & Services

Item & Description	SKU	Quantity	Unit Price	Total
Imagination Kit		2	\$89.00	\$178.00
Robotic invention for microbit - single	SBE-M61-EN-V1	5	\$49.00	\$245.00
STEAM Starter kit	SBE-SB1-EN-V1	2	\$25.00	\$50.00
One-time subtotal				\$522.00
Discount 23				(\$23.00)
Total				\$499.00

Prince George's County Public Schools

Quote created: December 20, 2022. Reference: 20221220-133724286

Prince George's County Public Schools
14201 School Lane
Upper Marlboro, MD 20772
United States

Eileen Lengenfelder
eileen.lengenfelder@pgcps.org
301/7179506

Comments

Rasmus Carlsson - Strawbees AB



Products & Services

Item & Description	SKU	Quantity	Unit Price	Total
Imagination Kit		2	\$89.00	\$178.00
Robotic Invention for micro:bit - single	SRI-MBI-EN-V1	6	\$49.00	\$294.00
STEAM Starter kit	SRI-SBI-EN-V1	2	\$25.00	\$50.00
One-time subtotal				\$522.00
Discount 23				(\$23.00)
Total				\$499.00