

### 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

Position: STEAM teacher	
chool: Edward M Felegy Elementary	
mail Address:	
Phone Numbers: School:	
Amount Requested: #499.00	
heck Should be Payable To: _Edward M Felegy Elementary I	PTA
	ate:June 14, 2023 Not after July 1, 2023
Not before January 2023	Not arter July 1, 2025
Reminder: A final report is due b	y July 3, 2023
rincipal's Signature: Trevor Q. Libus Da	te: Jan. 5, 2023
rincipal's Printed Name:	<u> </u>
	te: Jun. 5, 2023
unplicant's Signature: Ellow Almondolopai	
Applicant's Signature: Licen Jungulble par	
Applicant's Signature: <u>Licen Fungufolde</u> par Applicant's Printed Name: <u>Eileen Lengenfelder</u>	
pplicant's Printed Name:Eileen Lengenfelder *	0
Applicant's Signature: Licen Jurgufolde part Applicant's Printed Name: Eileen Lengenfelder SECTION 3 - DESCRIPTION OF GRANT REQUEST Sitle of Project: Lool if Up	

#### **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

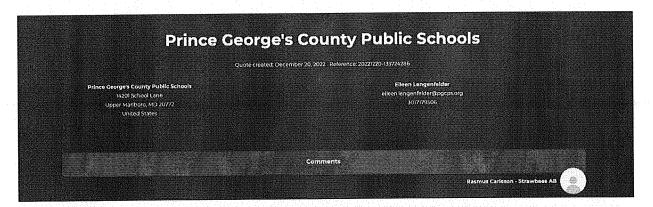
During this three week period ten kindergarten and second grade classes will attend a 45 minute STEAM lab to participate in this Squishy circuit lab. This time frame will allow each group of students to spend 2 hours and 15 minutes focusing on this project. It entails not only learning about electricity, 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 humansHenry 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!

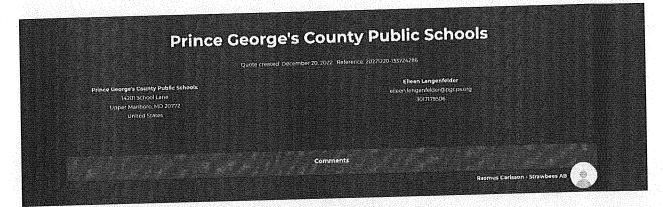
### Detailed budget plan

## https://strawbees.hubspotpagebuilder.com/81f11d3a3518f3e30748



#### **Products & Services**

Item & Description	sku	Quantity	Unit Price	Total
Imagination Kit		2	\$6900	\$178.00
Robotic invention for micro:bit - single	\$R-MBEEN-VI	6	\$49.00	\$294.00
STEAM Starter kit	206-387-64-71	2	\$25.00	\$50.00
One-time subtota:				
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### **Products & Services**

Item & Description			SKU	Quantity	Unit Price	Total
		 		2	<b>\$</b> 89.00	\$178.00
Imagination Kit	- Januarite - Alagaia		SRI-MBI-EN-VI	6	\$49.00	\$294,00
Robotic Invention for I	Microrott - single		SBE-SBI-EN-VI	2	\$25.00	\$50.00
STEAM Starter kit						\$572.00
One-time subtotal						(\$2500)
Discount 23	Lanco processor and a second s					\$499.00