

THE CUTTING EDGE: USING THE SILHOUETTE CAMEO AS A LAUNCHPAD FOR MAKING

University of Idaho Library
Courtney Pace,
cpace@uidaho.edu
Jessica Martinez,
jessicamartinez@uidaho.edu

PROGRAM OVERVIEW

Age group(s): 10+

Time to set-up: 15 minutes

Time to complete: 30 minutes

Time to clean-up: 15 minutes

Mess level: Low

Difficulty level: Low

Approximate start up cost: \$275



Silhouette
Cameo

Vinyl Decals

Screen Printing

Glass Etching



SUPPLIES NEEDED

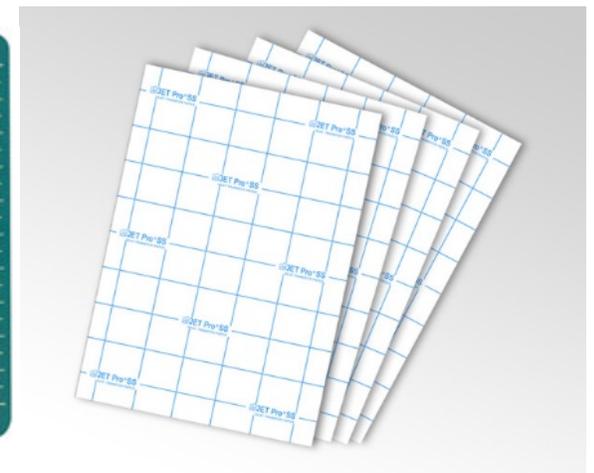
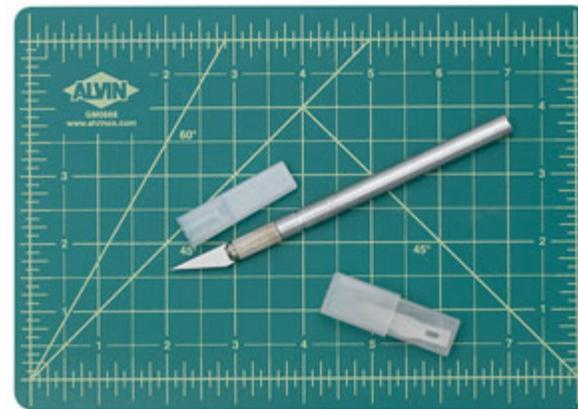
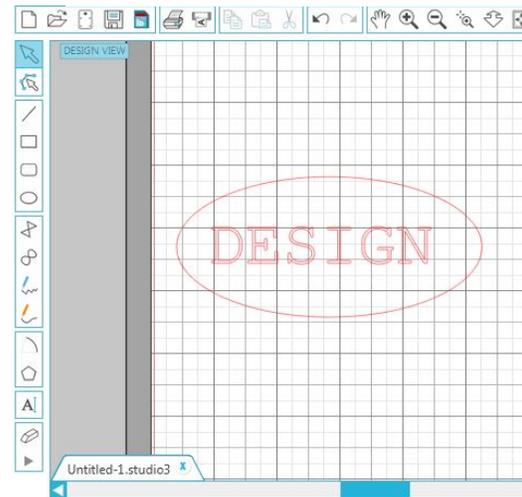
Silhouette Cameo

Silhouette Studio Design Software (free)

Vinyl Sheets

Transfer Paper

Razor Blade/Cut Mat



REFLECTION

By offering this program to the campus community, we have increased patronage in the MILL. This program has also led to more diversity in our workshop series, as the skills gained apply to various projects.

Many learners are hesitant to learn about a new technology due to the intimidation factor; this program acts as a low-barrier introduction to makerspaces, and allows participants to gain skills they can then apply to other maker projects, leading to recurring visits and an increase in confidence.

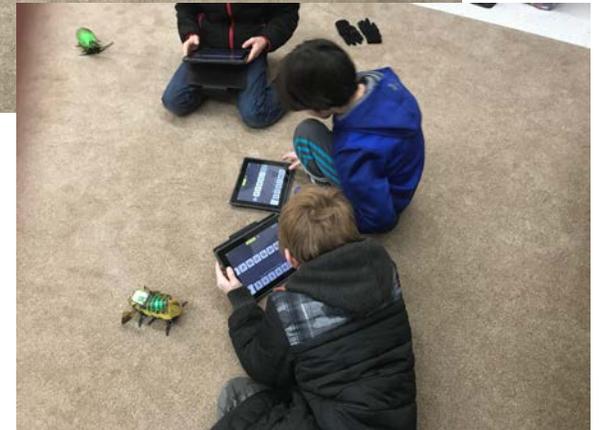
Kamigami Robots: Origami Meets Robotics

Southside Elementary
Lynette Leonard



Program Overview

- Age group(s): 8 and up
- Time to set-up: 15 min
- Time to complete: 45 min
- Time to clean-up: 15 min
- Mess level: Small
- Difficulty level: medium
- Approximate cost: \$15-\$85



Supplies needed

- Kamigami Robot
- I-pad, phone or app base device
- Miscellaneous craft supplies.
- Internet



Reflection

- **Success**

- Students are fully engaged and excited to learn!
- There are many different types of programs you can do with Kamigami robots. NOT JUST BUILD!
- Kamigami is one of the most asked for programs we offer.
- FUN with a purpose!

- **Lesson Learned**

- Large groups can be a challenge.
- Have students sync devices and robots one at a time or at least 4 feet away from each other.
- Do not attempt to build with K-2 grades. Have older kids put together and younger use for intro to coding and other Kamigami programs.



Full STEAM Ahead

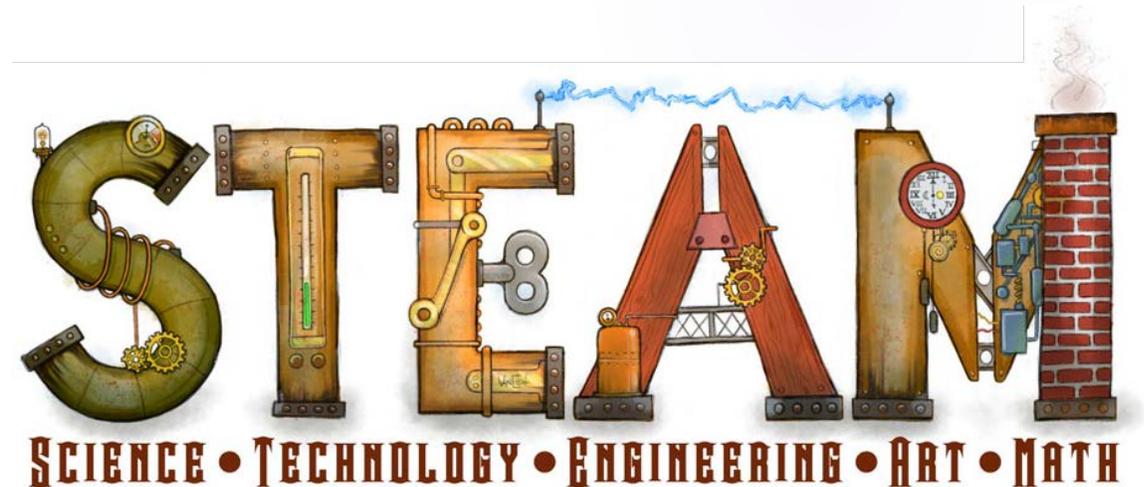
COMMUNITY LIBRARY NETWORK

KELSEY MACK, KELSEYM@COMMUNITYLIBRARY.NET

TIM MADSEN, TIMM@COMMUNITYLIBRARY.NET

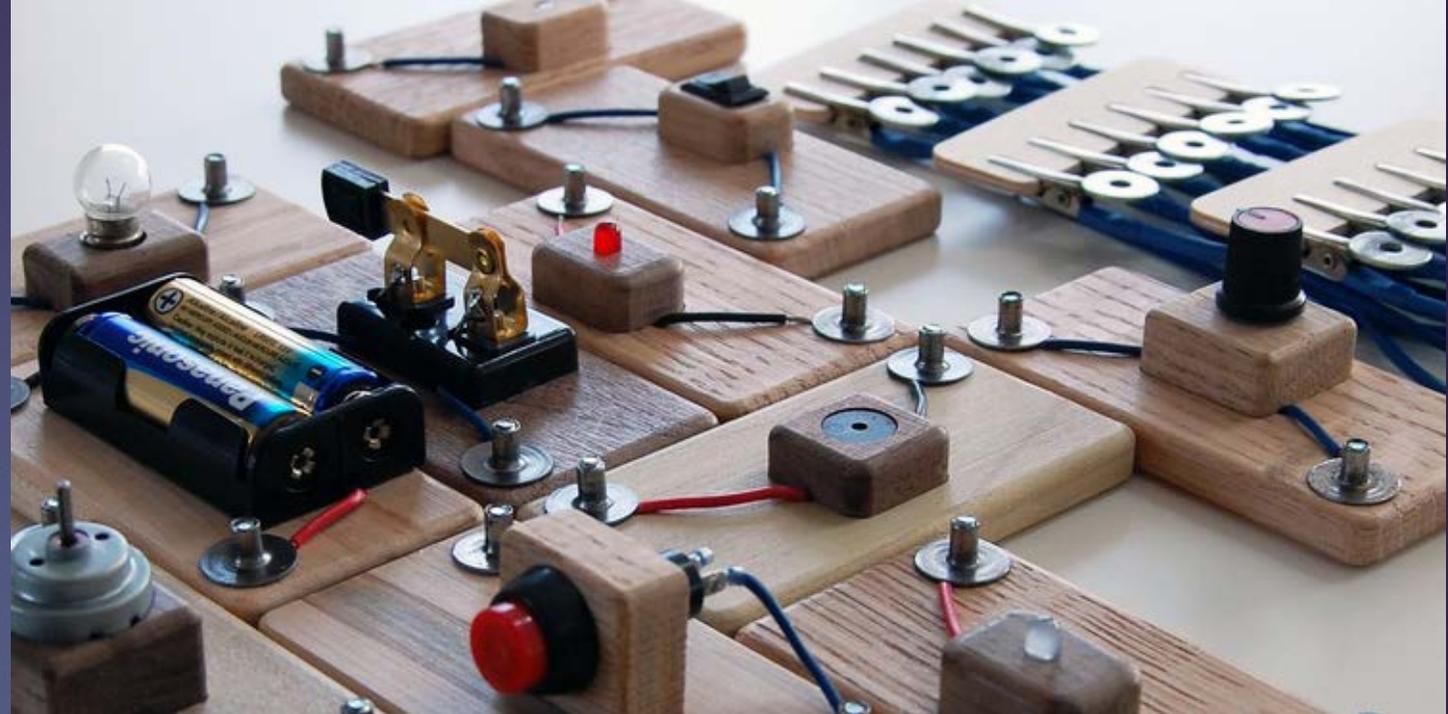
Program Overview

- ▶ Age group(s): K-6
- ▶ Time to set-up: 10 minutes to set-up the kit. To assemble the kits, give yourself a month for items to ship.
- ▶ Time to complete: 30 minutes to present the projects.
- ▶ Time to clean-up: 10-25 minutes
- ▶ Mess level: Low
- ▶ Difficulty level: Easy
- ▶ Approximate cost: \$150.00



Supplies needed

- ▶ [Circuit Blocks](#)
- ▶ [Circuit Maze](#)
- ▶ [Electricity and Magnetism Set](#)
- ▶ [Energy Stick](#)
- ▶ [Motors and Generators](#)
- ▶ Plastic totes for transportation and storage



Reflection

▶ Success

The Full STEAM Ahead project is a great way to bring the library out into your community. We have had great success in creating partnerships with schools to provide these programs and teachers and students are thrilled with the kits.

▶ Lesson Learned

Scheduling is difficult when multiple kits are created. We recommend a master google calendar or spreadsheet so you can keep track of where, when, and how long a kit has been at a school.

DRONE CLUB

Coeur d'Alene Public Library

Tyler McLane | tmclane@cdalibrary.org

Program Overview

- Age group(s): 8-18
- Time to set-up: 15 minutes
- Time to complete: 60-90 minutes
- Time to clean-up: 15 minutes
- Mess level: Low
- Difficulty level: Moderate
- Approximate cost: \$300+ for five units, spare batteries, & replacement bits



Photo credit: <https://unsplash.com/@dose>

Web Resources:

- Federal Aviation Administration's information for educational users, www.faa.gov/uas/educational_users/
- Register your drones at the Federal Aviation Administration's DroneZone, <https://faadronezone.faa.gov/#/>
- Learn more about Section 336, the rules governing recreational fliers and model aircraft, https://www.faa.gov/uas/recreational_fliers/
- Learn more about Part 107, the rules governing when you need the official drone pilot's license, https://www.faa.gov/uas/commercial_operators/

Supplies needed

- Drone & controller
- Spare batteries & multi-battery charger- for drones & controllers
- Replacement rotors and rotor protectors
- Obstacles to practice handling- platforms to land on, pillars to weave around, hoops to fly through



Photo credit: <https://unsplash.com/@mviviani>

Reflection

- **Success**
 - Patrons very engaged with material, retention was 100%
 - PR boost for library
 - Good balance between teaching and hands-on
 - Partnership with Coeur d'Alene tribe was very successful
 - Turnout and engagement with girls and people of color was disproportionately strong
- **Lesson Learned**
 - 8-18 is too broad a range for a single approach
 - 8-year-olds don't do well with powerpoints
 - Marketing was not optimal, leading to lower than expected turnout
 - Drone laws are complicated and in flux- have a plan and seek approval and present case to stakeholders