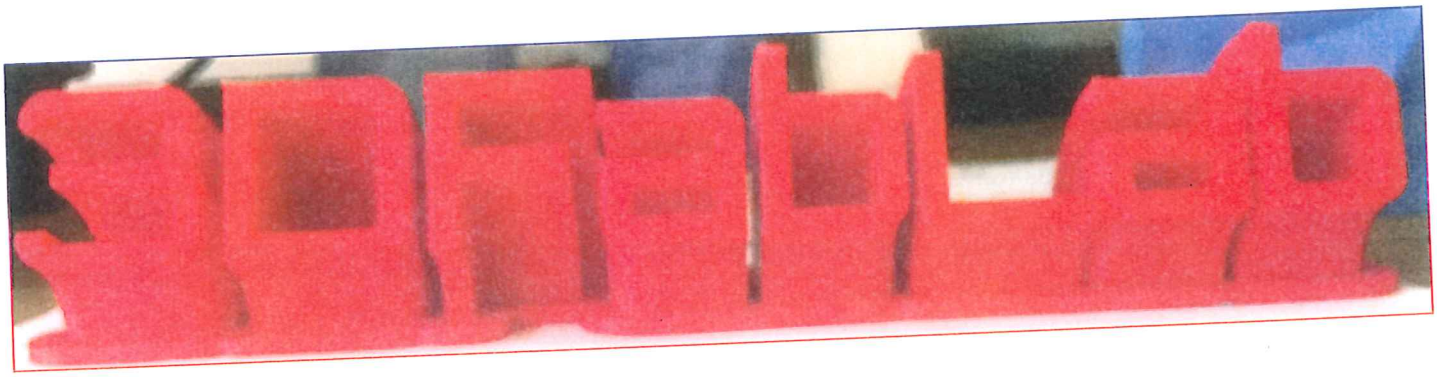
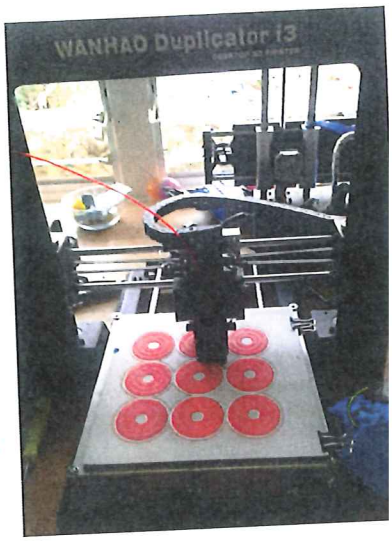
Exclusively at Star of the Sea



3D Fabrication Lab

Middle School

We now have *three* 3D printers to give students more print time



Students will learn how to embrace the latest technology in a fun and informative class. All students will design objects in the virtual world to print on the 3D printer.

- Learn basic CAD design using Tinker CAD web based program
- Learn how the 3D printer works
- Learn how to transmit designs to 3D printer via remote computer
- Print cool designs to the 3D printer
- Learn how to use slicing and 3D printer control programs

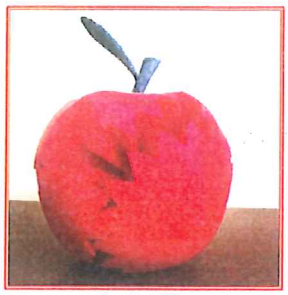
Middle School Student will also start a major project a National Volunteer Project with E-NABLE. We have included a separate flyer about this exciting project.

Quarter 2 - Cost $100 for 8 classes

(no refunds for unused classes)

All equipment provided, including 3D printers and plastic.

Please make all checks payable to Fab Lab Hawaii



3D Fabrication Lab
Middle School

	Group 1 - Mondays 4-5pm	Group 2 – Tuesdays 3-4pm
Week 1	October 12 – no classes	October 13 – no classes
Week 2	October 19 – Monday 4-5pm	October 20 – Tuesday 3-4pm
Week 3	October 26 – Monday 4-5pm	October 27 – Tuesday 3-4pm
Week 4	November 2 – Monday 4-5pm	November 4 – Tuesday 3-4pm
Week 5	November 9 – Monday 4-5pm	November 10 – Tuesday 3-4pm
Week 6	November 16 – Monday 4-5pm	November 17 – Tuesday 3-4pm
Week 7	November 23 - Monday 4-5pm	November 24 – Tuesday 3-4pm
Week 8	November 30 – no classes	December 1 – no classes
Week 9	December 7 – Monday 4-5pm	December 8 – Tuesday 3-4pm
Week 10	December 14 – Monday 4-5pm	December 15 – Tuesday 3-4pm

Class size is limited to 12 students per class to ensure computer availability for all students.

We have partnered with homework help to offer a Monday only Homework Help class for those students not regularly enrolled in Homework Help. The cost is $40 for the 8 classes on Mondays 3-4pm prior to 3D FabLab classes. Please include additional check for $40 payable to Star of the Sea.

This is the latest technology in parts fabrication – please call Aaron Marsh 808 478 2588 or email FabLabHawaii@gmail.com if you have questions about course content.

Student Name: _____ Grade: _____

Parent Name: _____ Phone: _____

Email: _____

Preferred Class (circle one): Group 1 Mondays 4-5pm Group 2 Tuesdays 3-4pm

Homework Help Option: Group 1 Yes/No (additional cost $40) Group 2 not applicable

We will attend alternate class if our first option is not available: Yes/No (please circle one)

After class ALL students will be walked to the office for pick up. After School Program to go to: _____

Parent Signature: _____ Student Signature: _____

By signing this form Student and Parent agree to abide by the school Technology Acceptable Use Policy

MIDDLE SCHOOL

Exclusively at Star of the Sea School
3D Fabrication Lab
Middle School - Project e-NABLE

We are excited for our 3D FabLab Middle School classes to participate in the global initiate e-NABLE. Students can opt to participate in this class component during selected times.

What is e-NABLE?

e-NABLE is a global network of volunteers who are using their 3D printers, design skills and personal time to create free 3D printed prosthetic hands for those in need – with the goal of providing them to underserved populations around the world, particularly children.

How did e-NABLE get started?

e-NABLE was founded in 2013 by Jon Schull, a research scientist based at Rochester Institute of Technology, when he started coordinating offers for aid and requests for 3D printed hands. e-NABLE began as a match-making service centered around a map, but the community quickly branched out into designing and improving 3D printed prosthetic devices and building systems for better distributing them. Today the community numbers in the thousands and has delivered hands in 37 countries.

What can these 3D printed hands be used for?

These devices should be seen as tools and not a fully functional prosthetic device. Children use them for simple tasks like holding water bottles while being able to hold a snack in their other hand, helping to give them balance by allowing them to use two hands to ride a bike or play on the swings, holding sports equipment like a baseball bat, and even help with swimming.

What is 3D FabLab Hawaii doing to help?

We have registered as a participating fabrication and design lab. This quarter we will start working on printing the components for a sample prosthetic hand. As much as possible we will also involve students in applying rivets and cables to make the hand functional. We will then submit our project to e-NABLE for quality control review and assessment. After this process we will wait to be assigned a specific project.

We are focused on the community aspect of 3D printing and raising the student's awareness of the real world capabilities of this technology. Even if we are never selected to print a hand for a child, we will have achieved these goals by being an active participant and striving to achieve our best.