

POSEIDON



Mobile Aquarium Adventure

This program is supported in part by a grant to Georgia Public Library Service from the U.S. Institute of Museum and Library Services under the Library Services and Technology Act.

What is Poseidon?

Poseidon is a traveling educational toolkit and exhibit of curated technology and activities jointly designed by Georgia Public Library Service and the Georgia Aquarium to take the Aquarium's mission of community outreach, conservation support, and the rescue and rehabilitation of marine life outside of the Aquarium's walls.

Within this kit are lesson plans, activities, and tech that allows public libraries to conduct programming and events for their patrons, many of whom may not get to experience the Aquarium otherwise.

All lesson plans and accompanying are loaded onto the computer hard drives (shortcut on desktops) and in a Google Drive folder (shortcut on desktops). Each laptop has three web browsers setup for use with necessary web pages bookmarked. All three laptops contain identical logins and are loaded with the same files. There are three books, a mockup of a penguin nest and egg in a jar, photographs, and a penguin puppet for story time activities.

Laptop Login

gpls.poseidon
P1800seidon

Oculus Login

GPLS_Partnerships
dlandrum@georgialibraries.org
StratPart_!800
0081

If you have any questions, concerns, suggestions, or if any piece of equipment malfunctions or breaks, please do not hesitate to contact the GPLS Manager of Strategic Partnerships, Dustin Landrum, using the information below.

dlandrum@georgialibraries.org
404.821.9237

Poseidon Tech

Afinia H800 3D printer and filament

CURRENTLY UNAVAILABLE



MacBook Air



HP 250 G5 Notebook



MSI VR Ready GE72VR Apache Pro-024



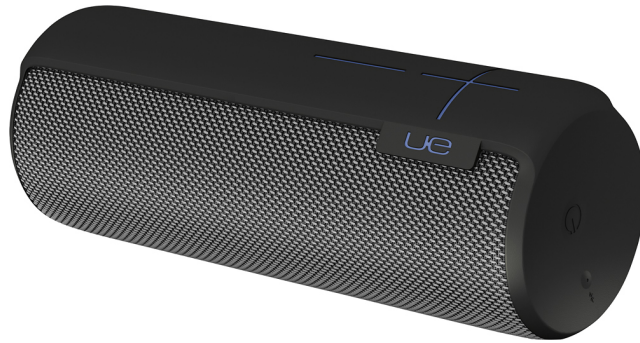
Oculus Rift + Touch Virtual Reality System



Epson PowerLite 1761w



UE Megaboom Bluetooth Speaker



10ft HDMI cable

USB-mini cables

USB-micro cables

All essential power cords


Poseidon Setup

As you can see, there are three laptops available for use with the Poseidon kit. Each has a recommended purpose. Note, the Oculus will only work with the MSI as it's the only computer with enough horsepower.

<u>Laptop</u>	<u>Use</u>
HP Notebook	3D printing
MacBook Air	Audio/Video/Presentation/Live Streaming
MSI VR Ready	Oculus Rift

The **Epson Powerlite projector** is included for libraries who do not have a projector or wish to set up the kit in a location that does not have one.

The **UE Megaboom 2 Bluetooth speaker** is included for libraries who do not have a PA system or wish to use the kit in a location where they do not have access to one. The speaker is paired to all three laptops. However, technical difficulties do arise. Below is how to pair the speaker, if necessary.

1. Press and hold Bluetooth button  until you hear a sound
2. Go to the Bluetooth settings on the device and select ULTIMATE EARS MEGABOOM
3. The device should pair and/or connect

The best setup for the **Oculus Rift + Touch Virtual Reality System** is to connect the headset (USB/HDMI) into the right-side ports of the **MSI VR Ready GE72VR Apache Pro-024** and the two sensors (USB) in the left ports. The handgrips are wireless and sync to the sensors. Extra AA batteries for the grips are provided.

Open the Oculus desktop home program which is pinned to the taskbar and looks like this:



The interface for the Oculus software is akin to several other well-known digital distribution programs. There are free tutorials available for acclimating yourself to the Oculus, such as *First Contact*, so please feel free to run those for yourself or staff for a better understanding of the device and interface. However, the primary purpose of including the Oculus in *Poseidon* is for the interactive ocean experience, *Ocean Rift*. This program allows participants to select various aquatic habits of living and extinct

species. Participants are immersed in a fully virtual ocean where they can identify species and “swim” alongside them.

It is highly recommended you follow the Oculus Rift configuration procedures at your first setup.

- Open the Oculus Rift Desktop App
- Click on Devices in the left column
- Click on Configure Rift in upper right corner

The Devices screen is also a great way to see if the Rift components are “talking”.

It is also advised you use two people for this task as some events take place on the laptop screen but not in the headset. The Setup procedures go into great detail, so, hopefully, you should not need to access the online documentation (it is bookmarked in all browsers just in case). You **do not** have to go through the full setup for each potential user, only when initially setting up the Rift. The procedures ask for the height of the user, so it is recommended you enter a height of 5 feet 10 inches which should allow anyone to enjoy the Oculus with ease.



- You need an open space devoid of any and all obstacles when using the Rift.
- While wearing the headset, users see only the virtual environment.
- It is incredibly easy to become tangled within the headsets cord.
- It is just as easy to become disoriented while wearing the Oculus.
- It is not advised for anyone to use it alone.
- Children 13 or below should always have someone with them, especially younger users.
- Please keep in mind, the experience may be frightening to younger children.
- People who wear glasses may need to remove them when using the Rift. This is dependent upon the size of their glasses, though, as smaller pairs will fit within the headset.
- Injury to a person or damage to the Rift due to falling or tripping is a very real hazard.

THE AFFINIA H800 3D PRINTER IS CURRENTLY UNAVAILABLE

~~The **Afinia H800 3D** printer is so a library can 3D print models of aquatic life to use in emphasizing the programs and activities contained within *Poseidon*. Models for the~~

~~Afinia are stored on the “Poseidon Files” Google Drive folder on all computer desktops even though the **HP 250 G5 Notebook** is the ideal laptop for 3D printing. You should receive at least one spool of printing filament. If you wish to purchase more, you are certainly welcome.~~

~~**Only use PLA filament in the 3D printer.** It is the easiest to manage, puts less strain on the machine, and is less likely to clog.~~

~~Keep in mind it can take hours and hours to print one 3D object. Printing more will take a full day. It’s possible within the Afinia desktop program to reduce the scale of an object to be able to print more of them in a shorter amount of time. In short, plan ahead.~~

~~The full Afinia H800 3D Manual is included as a separate document while the Quick Reference is provided at the end of this document.~~

Poseidon Activities

All activities have materials and lessons associated with them. Some materials are not included within *Poseidon*. Be sure to review the activities and lessons well-ahead of your event. Activity files are found in the Google Drive folder and on the laptop hard drives.

Countershading Origami

A lesson on how many animals have different colors on their bodies enabling them to blend into their natural habitats. Photos are included in lesson. Origami lesson where participants can color a penguin to match their (the participant) current location, neighborhood, favorite place, etc.

Oil Spill Rescue

A lesson where participants learn about the terrible threat of oil spills to African penguins and all aquatic life. The activity is “cleaning” up a spill.

Georgia Aquarium and SANCCOB

A lesson on Southern African Foundation for the Conservation of Coastal Birds (SANCCOB) focusing on their rescue and rehabilitation efforts for African Penguins. The activity is taking participants through the life of a penguin from egg to adult.

African Penguin Taxonomy

This lesson goes into how species in the animal kingdom are separated into groups based upon the traits each has in common. African penguins are used at the example.

Poseidon Penguin Storytime

Another aspect to Poseidon is a Penguin Storytime. Within the case is three titles for multiple age ranges and a penguin puppet. There is no specific lesson tied to this portion; libraries are welcome to create their own activities around the books and puppet.

STEAM Forward

Another avenue for Aquarium education is *STEAM Forward*, a free resource designed for middle school students that highlights the variety of STEAM career pathways that exist at the Aquarium by peeling back the layers of operations and meeting the experts behind the scenes. There are 11 total episodes, each with a video, student activities, and teacher instructions.

STEAM Forward is bookmarked in each web browser.

Please feel free to use *Poseidon* to incorporate these lessons into your Aquarium programming

Aquarium Live Webcams

The Georgia Aquarium has live streaming webcams installed in 11 habitats for education or entertainment. It is recommended to select one (or more depending upon available tech) to project during a presentation or while other programming is conducted.