Lumination Learning Lab

Essentials Guide

IMMERSIVE LEARNING PROGRAM

HoloLAB Champions

Duration
60 Minutes

IMVR Application Link
Download Here

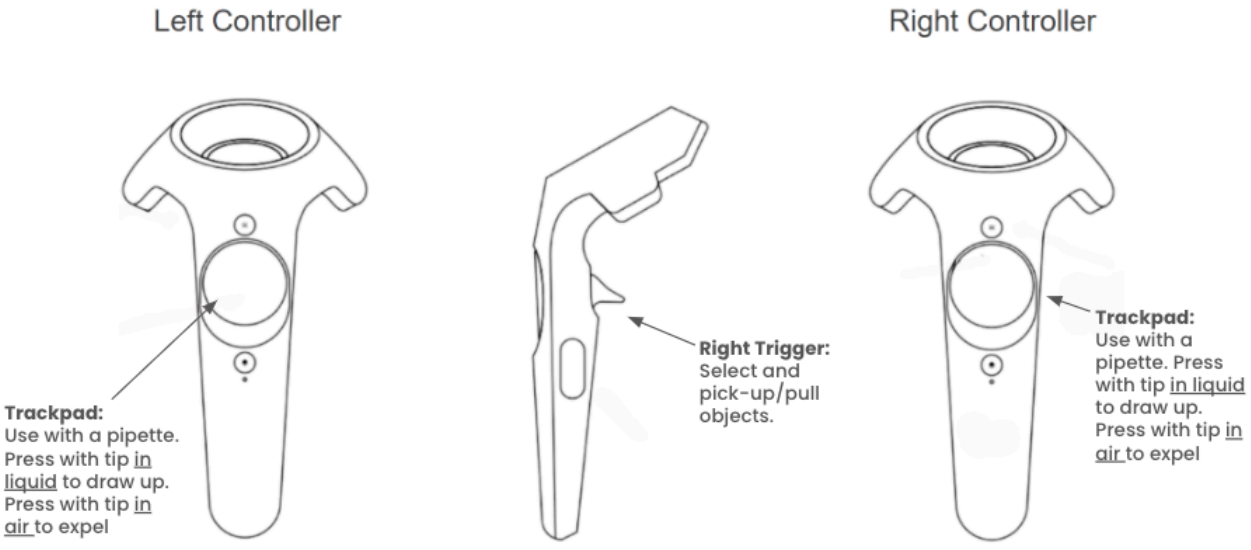
App Overview

HoloLAB Champions is a VR game that immerses students in a futuristic game show setting to teach and test chemistry lab skills. Students complete realistic lab challenges that emphasise proper techniques, chemical reactions, and measurements. Ideal for classrooms, HoloLAB Champions provides a safe and interactive way for students of all ages to learn and practice chemistry concepts.

Objectives

For students to explore the basic functionalities of HoloLAB Champions by interacting with equipment and materials that can be found in an actual lab. Students may also create a lab safety VR guide using CoSpaces/ThingLink.

Basic Controls



Developed by Sara White

Resources

Video: Chemistry Experiment | Mr. Bean Official (2:02)

External Tutorials: HoloLAB Champions Classroom Guide

Student Resources: Student Digital Notebook - HoloLAB Champions

Safety Poster: Lumination Safety Poster.pdf

Top Tips

Elements and Features of the experience to be aware of:

- Students only need to use one controller.
- Use the trigger button to select and move the hand to 'push' or 'pull' buttons/levers.
- Use the trigger button and hold to pick up items. Pull the trigger and release to let go of items.
- Pick up and move safety goggles to face at the start of each practice/lab. This is good practice for safety routines in lab environments.

Learning Sequence

Start all students on their Student Digital Notebook - HoloLAB Champions. Provide a basic run through of their tasks and explain that they will be completing the sections of the notebook at their own pace, independently or with a partner.

There are about 20 minutes worth of research tasks in this digital notebook, which will require access to the internet. There is an optional creation task that will require logins and access to CoSpaces and/or Thinglink. This activity can be continued into the next lesson, or used as a 'fast finisher' task in the future. Please review and adjust content to best suit your cohort of students.

As students get started, begin calling up the desired number of students/groups to begin their exploration of the experience.

The purpose of this session is to get students familiar with the learning experience, and to also identify key safety procedures needed in labs.

Provocation: Watch the video Chemistry Experiment | Mr. Bean Official (2:02) and discuss the potential hazards. Ask students the following questions to generate discussion:

1. What are some risks when using lab equipment in the real world?
2. What equipment/tools can we use to protect ourselves? (lab coat, goggles, gloves etc
3. How can we identify potential risks in the lab?

IMVR

Assign students in desired groups. Each student will be given **5 minutes** to choose and go through one mini-lab practice session.

Nominate students to be responsible for the following jobs:

- **Timekeeping:** ensuring each student adheres to the provided time limit
- **Safety:** ensuring that the safety guidelines are being followed correctly
- **Headset Switcher:** they will swap the devices and controllers for each student

Once in the experience, students will need to use the trigger on the controllers to press the “practice” button to select the practice game mode. Use the arrow buttons to move between different activities (full matrix of activities on slide 3 of Student Digital Notebook - HoloLAB Champions).

Each lab will have between 1 to 5 items to create and submit. Follow the procedure in the lab notebook to create their submissions. When they have placed all the items on the pedestal, pull the submit level. Students will receive a score based on accuracy, safety and speed.

Student Digital Notebook

This station includes research activities on lab safety (page 8 of their digital notebook). Students may also work independently to create an interactive Lab Safety demonstration in either CoSpaces and/or ThingLink.

Troubleshooting

- Students may restart the session if any issues occur by pulling the ‘Reload Pulley’ on their left.
- To exit, students need to lift the cover on the exit lever, before pulling the lever down.

Learning Bytes

1. Illuminate the Science: Discover Chemiluminescence with HoloLAB VR (Year 10)
2. Solubility Simulations: Virtual Science with HoloLAB VR (Year 8)
3. The Wizard’s Brew: Mastering Volume & Ratio (Year 5-6)

**For more Learning Bytes please visit our Lumination Education Centre.*

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