### What is a Makerspace?

A **makerspace** is a space where people can come together to use different technologies and physical materials to turn their projects and ideas into tangible realities! These spaces can be a permanent fixture in your school or be mobile so that making can happen anywhere.

The maker movement is an extension of the DIY (Do-It-Yourself) and hacker culture. Makers can make products from scratch, alter pre-existing products to improve their functionality, or "hack" them for a specific purpose.

## What Does a Makerspace Look Like?

Makerspaces are open spaces that **facilitate collaboration**, an exploration of different materials, and usually have some or all of the following tools: 3D printers, laptop and desktop computers, game-creation, animation and movie software, knitting machines, circuit-building kits, e-textile kits, iPads, tablets and apps, robots, construction materials, and more!

Our makerspace programs allow students to work together, problem-solve, plan and create unique projects all while learning various academic, inter- and intra-personal skills. The idea is to "**learn by doing**" and **construct knowledge**.



### **Contact Us!**

**Dr. Janette Hughes**: janette.hughes@uoit.ca Canada Research Chair, Technology & Pedagogy

To book sessions for your school, please contact the Ontario Tech STEAM-3D Maker Lab at: <u>uoitsteam3D@gmail.com</u>

#### Visit us Online:

Our Website: <u>http://janettehughes.ca/lab/</u> Maker Modules: <u>http://steam3d.weebly.com/</u> f <u>http://facebook.com/steam3Dmakerlab/</u> @steam3Dmakerlab

### Where We're Located:

STEAM-3D Maker Lab, Room 415 Ontario Tech University Faculty of Education 11 Simcoe Street North Oshawa, ON



# SCHOOL MAKER SESSIONS

### with the Ontario Tech University STEAM-3D Maker Lab



Book maker sessions for students and/or teachers at your school or in our Maker Lab. See inside for more details!

### **Educator Sessions**

Our sessions for educators include:

- 3D printing & design in TinkerCAD
- Augmented & virtual reality
- E-textiles (making "wearables")
- Creating with micro:bit
- Green screen video production
- Programmable robots
- Coding with Scratch (including Makey Makey)
- Circuit work (paper-based and Arduino)
- ... and more!

You decide on the focus for the session, and **we design a tailor-made workshop** to meet your needs for staff meetings or professional learning or development (PD) days.







# Session Costs

Please contact us through the form on our website to receive a quote for your personalized maker session:

http://bit.ly/mobilemakerteam

For questions, further information, or to discuss details, please email:

uoitsteam3D@gmail.com

## **STEAM Team Expertise**

Our team consists of graduate students, pre-service teacher candidates, faculty instructors, and researchers. We have facilitated sessions for students, parents, and teachers at Ontario Tech's Summer Camps, the STEAM-3D Maker Lab March Break Camps, the Ministry of Education

Makerspace Project Launch, the Science Teachers Association of Ontario (STAO) conference, Principals' Associations in Ontario, and received excellent feedback!

# **Student Sessions**

Our sessions for students are co-constructed with their teachers. Select topics from the same list as our Educator Sessions, and we will design a program that **integrates STEAM education with curricular goals**. We offer sessions for students in Primary, Junior, and Intermediate divisions.

Some of our popular sessions include designing wearable technologies and 3D printed objects, creating squishy circuits and playing with Makey Makey, programming in Scratch, making green screen videos, exploring virtual and augmented reality, and programming robots such as Ozobot, Sphero, and BB8.

Our **mobile Maker Lab** can come to you, or you can bring your students to our Lab in Oshawa.

# **Book Student Sessions**

To book a session for your school, please contact the STEAM-3D Maker Lab at: <u>uoitsteam3D@gmail.com</u>

