

T3 Alliance Online Training Opportunities

We are all members of TRIO, and as we navigate these different times, the T3 team is thinking about the safety and well being of the staff and families you serve. We are with you as you take care of your TRIO families.

In the spirit of T3's **AFIRE values – Adaptable, Fun, Inquiry, Respect, and Equity**, we offer the following thoughts.

- **Adaptable** – As we rethink and prepare for our summer program, we are also devising alternative delivery options, and working in small groups with distance support is a viable option. We are adapting and will keep you updated.
- **Fun** – Maybe this is an opportunity to dig into the RPi NodeRed coding tutorials, learning more about the sensors, hooking up the autonomous vehicles, and push the limits of the 3D printers. All of the materials are on the webpage, and we are ready to assist and provide a fun distraction.
- **Inquiry** – We seek your ideas for support, what would help, what concerns do you have, what ideas should we consider for assistance, etc. We are a TRIO Family, let's discuss how T3 and our tech work can help each other and those around us.
- **Respect** – We are one another's extended TRIO family, and we send these ideas in the spirit of being helpful and supportive and continuing the connections that we value.
- **Equity** – To the extent you are comfortable, let your staff borrow the T3 Raspberry Pi kits and go through the online lessons. The Discord channel is open for discussion and online support.

April 2, 2020 T3 Webinar 1 – Digging Deeper into Raspberry Pi

Description: This week's T3 instructional webinar is an introduction into Raspberry Pi and using the Node-Red with the GPIO pins.

T3 C3 HOSTS: Corey Simpson, Gabriel Low, Stephanie Givens, Jasmine Johnson

- [Part 1: https://www.youtube.com/watch?v=SmaGoeIuysE](https://www.youtube.com/watch?v=SmaGoeIuysE)
- [Part 2: https://www.youtube.com/watch?v=CU8FKbTzehM](https://www.youtube.com/watch?v=CU8FKbTzehM)
- [Part 3: https://www.youtube.com/watch?v=5USfPLsAC_k](https://www.youtube.com/watch?v=5USfPLsAC_k)
- [Part 4: https://www.youtube.com/watch?v=ZB286qbttxk](https://www.youtube.com/watch?v=ZB286qbttxk)

April 9, 2020 T3 Webinar 2 – Using the Dashboard with Node-Red

Description: This T3 instructional webinar goes more in-depth into programming Node-Red on the Raspberry Pi, specifically the Node-Red Dashboard functionality. By the end of the lesson, you will have created a basic climate monitoring system using the Node-Red, and the BME280 sensor.

With many people signing into the webinar, the instructional time is limited, but the chat line is active and monitored during the instruction, so ask questions. This week's presenters are Jasmine Johnson, Director, Upward Bound, Miami Dade College, Homestead Campus, Gabriel Low, coming to you from Columbia, and Stephanie Givens, Director, Upward Bound, Louisiana State University. Monitoring the zoom session and serving as tech support is Corey Simpson, TRIO IT Systems Coordinator, Boise State University. A big thanks to the four of them.

If you have an RPi kit, you can follow along or take notes so you can review the recorded content at a measured pace. Here are the links to last week's Webinar 1 videos. We are working

on breaking them into distinct themes so you can go directly to the information you desire.

T3 C3 HOSTS: Gabriel Low, Corey Simpson

- [Part 1 – Introduction](#)
- [Part 2 – Review & Programming the Dashboard](#)
- [Part 3 – Sensors & The Dashboard](#)
- [Part 4 – Triggers & Notifications](#)

April 16, 2020 T3 Webinar 3 – Raspberry Shake

Description: This webinar will focus on the Raspberry Shake seismograph sensor, both its installation and data visualization through Node-RED.

T3 C3 HOSTS: Gabriel Low

- [Part 1 – Introduction](#)
- [Part 2 – What is the Raspberry Shake](#)
- [Part 3 – Setting Up the Raspberry Shake](#)
- [Part 4 – Connecting the Shake & Creating the Dashboard](#)

April 23, 2020 T3 Webinar 4 – Networking

Description: Computer networking is big on our minds as we explore how to stay connected with our students this summer. At the conclusion of this webinar, you will be able to identify what makes up the Internet and how information is physically sent as well as how information is addressed and routed on the Internet. Additionally, you will configure your Raspberry Pi to allow for remote access on a local area network (LAN) and a wide area network (WAN) that will help your staff stay connected with students.

T3 C3 HOSTS: Corey Simpson, Gabriel Low

- [Part 1 – Introduction](#)

- [Part 2 – Internet Mediums](#)
- [Part 3 – IP Addresses](#)
- [Part 4 – Routing & Remoting](#)

April 30, 2020 T3 Webinar 5 – TRIO Summer Program Prep

Description: In this session, Upward Bound and Talent Search directors will be sharing their plans for a summer program; what is working, what they are doing for remote teaching, tips and tricks they have learned. Participants will be involved in discussions to see how we can help each other meet the needs of our students.

T3 C3 HOSTS: Daryl Albano, Jasmine Johnson, Corey Simpson, Adam Low

- [Part 1 – Introductions – Boise State, Hawaii University Hilo T3 Summer Plans](#)
- [Part 2 – Introductions – Miami Dad, University of Alaska Fairbanks T3 Summer Plans](#)
- [Part 3 – Let’s Talk – Q&A](#)

April 30, 2020 T3 Webinar 6 – Online Course Development

Description: As you think about how to provide STEM opportunities for your students, in this week’s Thursday Webinar, you’ll learn about T3 Alliance’s new online Raspberry Pi curriculum. Gabriel Low will guide you through the organization of the lessons, and explore STEM implementation strategies for programs facing a virtual, distance-learning based summer.

T3 C3 HOSTS: Gabriel Low, John Monahan, Adam Low

- [Part 1 – Introductions](#)
- [Part 2 – Students’ Perspective](#)

- [Part 3 – Instructors’ Perspective](#)
- [Part 4 – Q&A](#)
- [Part 5 – Q&A](#)

April 21, 2020 T3 Webinar A1 – Introduction to 3D Printing

Description: 3D printing is popular during COVID shelter-at-home. Hobbyist are being creative and helping make PPE. You and your UB students can join the effort! Join us and get comfortable with your 3D printer. T3 Tuesday Webinars for the next four weeks will take you step-by-step through getting familiar with your Qidi, printing from Thingiverse, and working with Tinkercad. Daryl Alano, UB Hilo, Hawaii, and Neldorial Perez Plaza, Puerto Rico, will expertly guide you and answer your questions. All the sessions are recorded and available to you.

T3 C3 HOSTS: Daryl Albano, Neil Perez Plaza

- [Part 1 – Introduction](#)
- [Part 2 – How are Things Made](#)
- [Part 3 – How 3D Printers Work](#)
- [Part 4 – First Print](#)

April 28, 2020 T3 Webinar A2 – 3D Printing

Description: This session covers examples of 3D printed models from Thingiverse, understanding printing characteristics, such as adding a support structure/adhesion layer, and a quick discussion about printing PPE equipment.

T3 C3 HOSTS: Daryl Albano, Neil Perez Plaza

- [Part 1 – 3D Printing Workflow](#)
- [Part 2 – Thingiverse](#)
- [Part 3 – Printing Characteristics](#)

- [Part 4 – Fun Things to Print](#)

May 5 2020 T3 Webinar A3 – 3D Printing 3D Models

Description: In this session, learn how you can use TinkerCAD to turn your ideas into 3D objects. Gain an understanding of where you can start and how you can implement 3D modeling/CAD into your T3 program.

T3 C3 HOSTS: Daryl Albano, Neil Perez Plaza

- [Part 1 – CAD and 3D Design](#)
- [Part 2 – What is TinkerCAD](#)
- [Part 3 – Creating a 3D Model](#)
- [Part 4 – Advanced CAD Programs](#)

May 5 2020 T3 Webinar A4 – 3D Printing Types of 3D Printing Filament

Description: In this session, learn about the different types of filament materials used in engineering and high performance manufacturing. Learn how to incorporate special materials, such as dissolvable and semi-flexible material, to your 3D printing projects.

T3 C3 HOSTS: Daryl Albano, Neil Perez Plaza

- [Part 1 – Intro to Thermoplastic Materials](#)
- [Part 2 – Types of Filament](#)
- [Part 3- Post Processing](#)
- [Part 4 – Industrial vs. Desktop 3D Printing](#)
- [Part 5 – Q&A](#)

What's Next? [T3 Alliance is responding to the need for supporting programs online, rather than face-to-face for the summer 2020 programs.](#)

You are invited to the Webinar on Thursday May 21 at 9:00 AM Alaska Time. Join Zoom Meeting. Connection details are posted on Discord (COVID-19 Channel).