

# INNOVATION DRIVEN BY A PANDEMIC

**HOW THE TEXAS TECH MAKERSPACE  
ADAPTED TO THE NEW NORMAL**

# ABOUT ME

- Associate Librarian at Texas Tech University
- Makerspace Librarian
- Research areas: interactive media, technology and libraries, reference and instruction

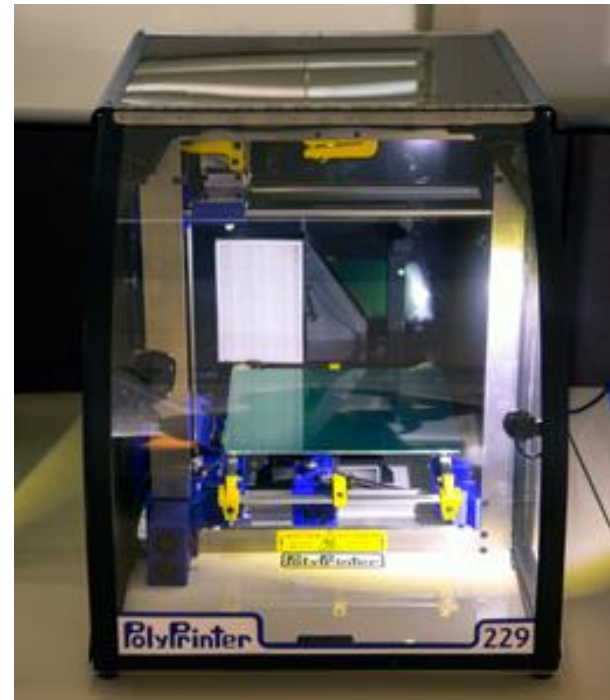


# OVERVIEW

- Introducing the TTU Library Makerspace
- Our services pre-COVID
- The remote work
- Our current services

# THE LIBRARY MAKERSPACE

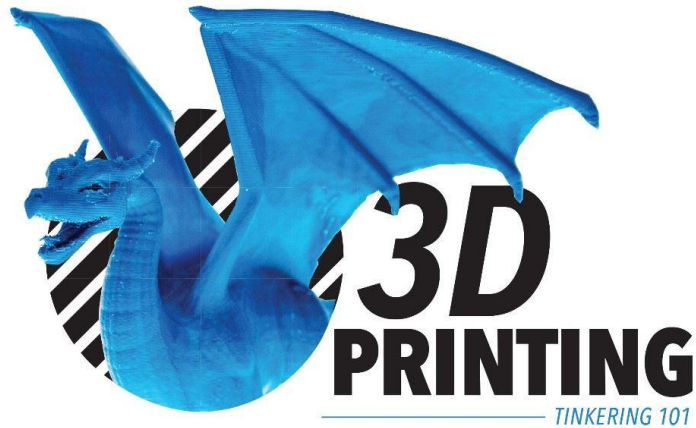
- Started in 2016
  - Just three 3D printers for students
  - Just myself and a staff member running the space
- Expansion over the years
  - Additional 3D printing
  - Additional services
  - Hired student assistants



# BEFORE COVID

- 3D printing and other projects
  - Averaging ~200 projects a month
  - Bringing in ~\$400 from cost recovery from materials
  - Printers running ~300 hours per month
- Virtual Reality Lab
  - 60 sessions per month in August 2019 (averaging 50 session monthly June-December 2019)
- Instruction sessions and workshops
  - Almost weekly sessions ranging from introductory to more advanced deep-dives into tools and resources for makers

# BEFORE COVID (CONT.)



## LEARN:

- A working definition of what *CAD* and *.STL* files are
- To import and perform basic modifications to an existing *CAD* object in *.STL* format
- To compose an original complex model in *TinkerCAD*
- Library resources for 3D printing

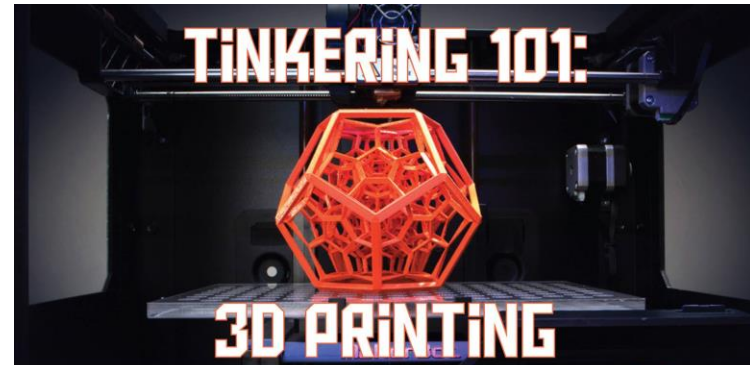
WHEN:

JUNE			JULY			AUGUST	
Thurs. <b>13</b>	Wed. <b>19</b>	Fri. <b>28</b>	Fri. <b>12</b>	Wed. <b>17</b>	Mon. <b>22</b>	Thurs. <b>1</b>	Mon. <b>5</b>
11 a.m. - 1 p.m.	5 - 7 p.m.	3 - 5 p.m.	2 - 4 p.m.	5 - 7 p.m.	4 - 6 p.m.	Noon - 2 p.m.	3 - 5 p.m.

**REGISTER:** [bit.ly/TTULibraryWorkshops](http://bit.ly/TTULibraryWorkshops)  
**WHERE:** LIBRARY INSTRUCTION LAB 150



FOR MORE INFORMATION VISIT TTU LIBRARY MAKERSPACE, ROOM 132 • [MAKE@TTU.EDU](mailto:MAKE@TTU.EDU)



## Learn TinkerCAD and Start 3D Printing Today!

### What you will learn:

- Have a working definition of what *CAD* and *.STL* files are.
- Be able to import and perform basic modifications to an existing *CAD* object in *.STL* format.
- Be able to compose an original complex model in *TinkerCAD*.
- Educate students on Library Resources for 3D printing.

### When:

- 4-6 p.m. March 28
- 3-5 p.m. March 29
- 4-6 p.m. April 5
- 4-6 p.m. April 10
- 3-5 p.m. April 18
- 5-7 p.m. April 30

Register at: <https://tinyurl.com/makemarch19-29>



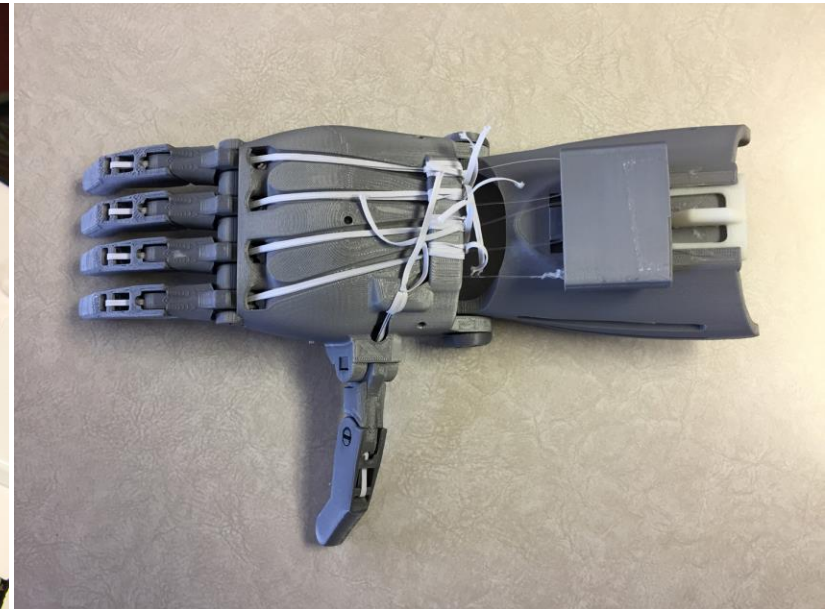
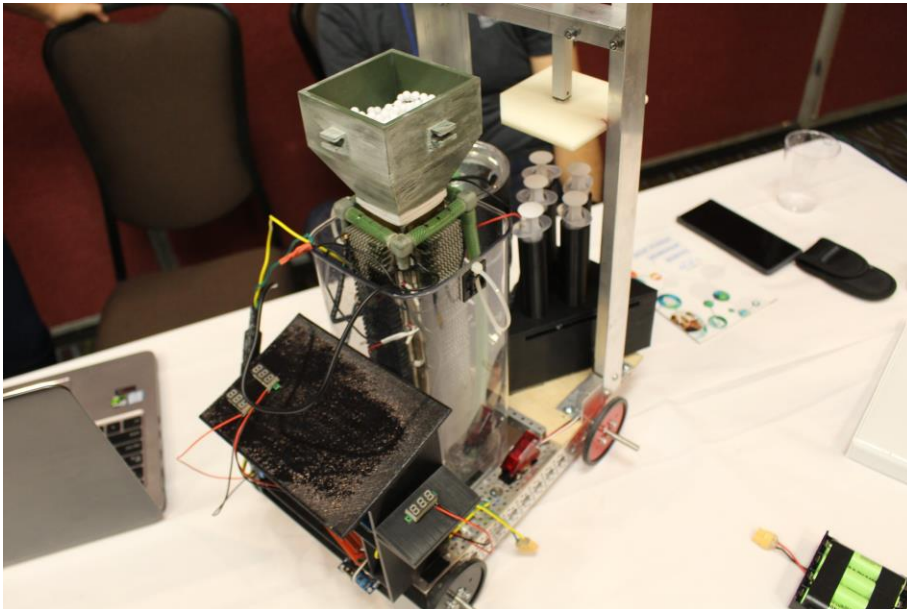
### Where:

Library Instruction Lab

For more information visit TTU Library Makerspace, room 132, [make@ttu.edu](mailto:make@ttu.edu)

# BEFORE COVID (CONT.)

- The Maker community
  - R3T: student organization based around our Makerspace
  - Chemical car competition
  - e-Nable partnership work



# THE TRANSITION

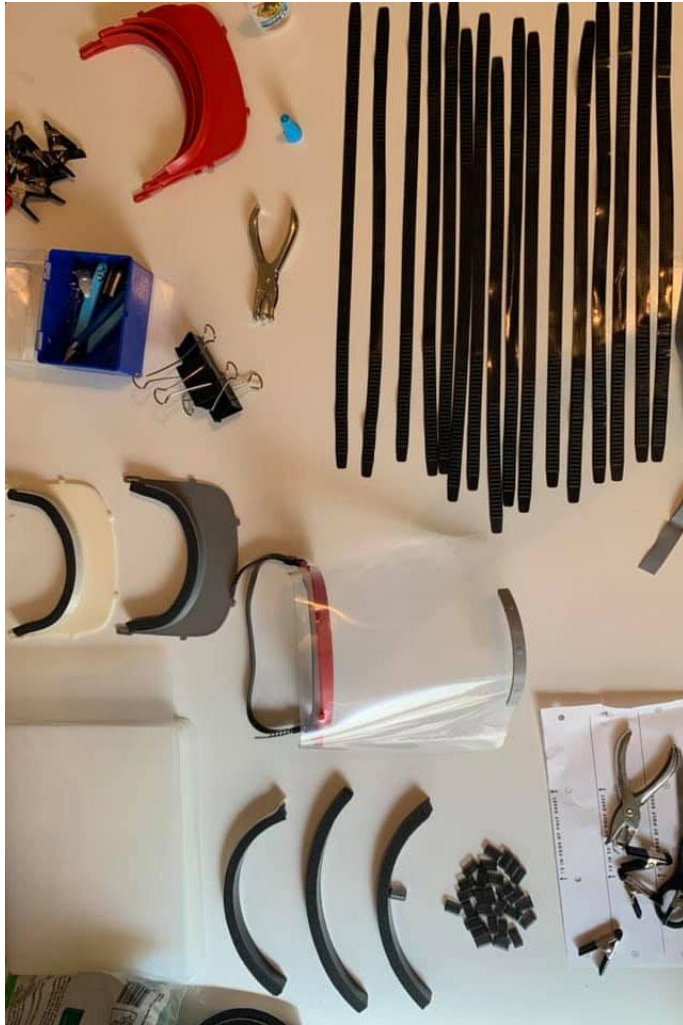
- Spring Break 2020
  - Began with an additional week for students
  - Quickly became an almost complete shutdown
- How to leverage our hardware, software, and expertise to help?
- Loss of physical space and student assistants, back to where we began.



# THE TRANSITION

- Working remotely, still providing instruction and design assistance to students, faculty, staff – even without the use of our printers.
- Staff member on campus running the 3D printers for the West Texas 3D Covid-19 Consortium project.
  - Creating face shields and ear savers for health care workers.
  - March to August: 1815 face shields, 343 ear savers at no cost to the consortium.
  - About 2900 hours of printing.

# THE TRANSITION (CONT.)



# CURRENT SERVICES

- Covid-19 is an ongoing issue, especially in the United States and especially in Texas.
- While we are open again, our services are very different.
- Focusing more on distance learning options for our instruction and workshop sessions.
  - Zoom, Skype, Blackboard Collaborate
- Like restaurants, we are really pushing a “pickup and go” model for projects.

# CURRENT SERVICES (CONT.)

- VR Lab
  - Closed for everyday use
  - Open for faculty/classes by appointment and observing distancing practices
- Leveraging the community
  - Contacts made in the consortium and around campus help us demonstrate our impact and worth to our administration and potential donors.

# FUTURE POTENTIAL

- Expansion of space
  - Allow for distancing and safe use
  - Allow for more staffing
- Expressed need for mobile payment and “no-contact” transactions
- Continued use of distance instruction model

# THANK YOU

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