Welcome to Texas Inventionworks!

This is the official Wiki of Texas Inventionworks - a Design and Innovation hub located in the Engineering Education and Resource Center (EER). This page serves as a home base for information about machines, trainings, materials for purchase, troubleshooting guides, and more. Take a look at the infographic below to familiarize yourself with what we have to offer.

To access our facilities and other resources you need to be a member of our community. Membership is free and available to currently-enrolled Cockrell School of Engineering students, to members of authorized multi-disciplinary classes or innovation projects and via a limited number of faculty guest memberships. To become a member of our community, register via our app [here](#). Please note that we have a new KIOSK sign in system that includes booking time at work stations and lasers, and requesting tools to be used on your projects.

Hours of operation, contact information, and inquiry information can be found here.

Please click here to learn more about TIW’s operations during COVID-19.

Texas Inventionworks Home

Search Texas Inventionworks Here!

**TIW KIOSK Website**

[Yes, we are open by reservation!](#)

Hours of operation are from [12:00 pm until 6:00 pm](#) Monday through Friday.

For further information see the [Hours of Operations](#) page.

**TIW Kiosk Website Login**

A basic Overview of Texas Inventionworks

<table>
<thead>
<tr>
<th>Design and Fabrication (DFAB)</th>
<th>Lasers</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>What is DFAB?</strong> DFAB is the backbone of TIW. Geeding an increasing predominance of 3D printers and milling machines, it is a rare project is completed without using some of machines in DFAB.</td>
<td><strong>What is Laser?</strong> The Laser Area is home to 7 high-power laser cutters used to cut and engrave wood, acrylic, and other materials with high-precision.</td>
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<tr>
<td><strong>What does DFAB have?</strong> - laser 3D printers - desktop CNC milling machines - SLA 3D printers - Carbon Fiber ray printers - A MIGHTY 3D printer</td>
<td><strong>What does Lasers have?</strong> - SEVEN 120 Watt laser cutters</td>
</tr>
<tr>
<td><strong>What can I do in DFAB?</strong> - Get trained to use a Laser cutter to cut and engrave wood, acrylic, and other materials with high-precision. Run as the AFRILC to the Wood</td>
<td><strong>What can I do in DFAB?</strong> - Get trained to use a Desktop CNC to mill soft materials or circuit boards</td>
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<tr>
<td><strong>E1</strong></td>
<td><strong>E2</strong></td>
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<tr>
<td><strong>What is E1?</strong> E1 is a workstation for basic hole drilling.</td>
<td><strong>What is E2?</strong> E2 is a workstation for soldering SMT and advanced electronics testing.</td>
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<tr>
<td><strong>What does E1 have?</strong> - Several soldering stations - solder, flux, a variety of air-gauges andcolours, an lathe generator - Get trained and start assembling simple circuit boards</td>
<td><strong>What does E2 have?</strong> - Oscilloscope, waveform generators - Heat guns, microscopes, etc.</td>
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<tr>
<td><strong>What can I do in E1?</strong></td>
<td><strong>What can I do in E2?</strong></td>
</tr>
<tr>
<td>- Get trained and start assembling simple circuit boards</td>
<td>- Get trained and become an electronics wizard!</td>
</tr>
</tbody>
</table>

**Work Shop**

**What is the Workshop?** The workshop is a workshop in TIW that houses all the necessary tools for woodworking projects.

**What does the Workshop have?**
- Band saw
- Drill Press
- Special tools
- Special wood cutting tools etc.

**What can I do in the Workshop?**
- Get trained and the possibilities are endless.

**Machine Shop**

**What is the Machine Shop?**
- The machine shop is located in the basement floor of EER and houses all of the machines necessary for metal-related projects.

**What does the Machine Shop have?**
- Manual lathe
- Manual grinders
- Belt sanders

**What can I do in the Machine Shop?**
- Operate the lathes or grinders and get training in metal fabrication projects.

**Idea Lab**

**What is the Idea Lab?**
- The Idea Lab is the design hub of TIW. When not being used for industry-focused projects, the Idea Lab houses an area for 3D printing, and local workshops for classes, innovations, and individual projects.

**What does the Idea Lab have?**
- 3D printers
- Laser cutters and wood cutters
- Vinyl cutters and wooden cutters
- Pantograph

**What can I do in the Idea Lab?**
- 3D print your own prototypes or cut your ideas into reality.

**Headquarters (HQ)**

**What is HQ?** HQ is a large room designed for seating and working on projects, and meeting with groups. No reservation required. HQ is located on the top floor of TIW.
What is Texas Inventionworks?

Texas Inventionworks (TIW) puts students in the role of innovators early by providing a welcoming, systematic pathway for them to learn, solve problems, develop products, and ultimately, launch ventures. Our goal is to challenge and empower students to think like designers, engineers and inventors from the beginning of their experience at UT and beyond.

So... you’re an engineering student, maybe you....

1. Printed a Pikachu in your High School Makerspace?
2. Have participated in a national robotics competition?
3. Are a student researcher?
4. Ready to start/finish your senior design project?
5. Have literally never touched a screwdriver...

We are here to help you all.

Where Do I Start?

No Idea Where To Start?

Any of our student staff members (tan aprons) are willing and able to give you an unofficial tour to students- just wander into the HQ on the 1st floor of EER and ask somebody at the desk.

If you want to get your feet wet the best place to start is with a 3D Printer. We offer an in depth 3D printer training (or Fused Deposition Modeling Technology Training to be specific) that covers everything from how 3D printers work to how to make the best quality prints.

Have an idea?

Come into the garage and ask a staff member about how and where to get started on any of your ideas. We will try to direct you to the proper resources to get started whether that is one of our trainings, an online resource, or another resource.

Have a Specific Question?

Stop by the garage to ask it! Our staff members have a vast collective knowledge across several disciplines- Aerospace, Mechanical, Civil, Electrical and Computational, Biomedical Engineering, Physics, Computational Biology, and Entrepreneurship to name a few. Chances are, if you don’t know how to approach something, we definitely know somebody who does.

Not eligible for membership? There are a couple of other facilities to be aware of. The Foundry, another fabrication facility, can be found in the Fine Arts Library. Off campus there is the ATX Hackerspace community.