

# Theresa Torraca

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## EDUCATION

**Worcester Polytechnic Institute (WPI)**, GPA 3.63/4.00 Worcester, MA  
**Bachelor of Science in Biomedical and Mechanical Engineering**, May 2021

## EXPERIENCE

**R&D Co-Op at Olympus Surgical Technologies**, Southborough, MA July-December 2019

- Instron testing and other material analysis for esophageal balloons
- Collaboration with Nordson Medical for a device design change
- Writing reports, memos, and test methods
- Machining: CNC programming and operating machines
- 3D printing: printing test fixtures and other parts designed in SolidWorks
- Tissue Testing: perfused and non-perfused kidney labs, cauterizing tissue and comparing incisions from different laser fibers and pulse shapes
- Using lasers to study pulse shaping and ablate synthetic stones

**Intern at Oishii Berry**, Kearny, NJ, May – August 2018

- Lead in sourcing product packaging: communicating with plastics manufacturing companies and prototyping in house transport solutions
- Vertical farming operations: harvesting, pollinating, fertilizing, and implementing a labeling system
- Assistant to lead robotics/automation engineer: optimize temperature and humidity conditions to accurately simulate nature while avoiding mold/disease propagation

**Canvas Kicks**, Online Business Owner, June 2018 – Present

- Unique customer-artist collaboration platform to create pieces individual to the customer

**A&M Case & Cooler**, North Arlington, NJ, family business, 2016-Present

- Processing payroll, checkbook reconciliation, filing, calling suppliers
- Taking field measurements and developing drawings representative of the proposed cold-storage construction project, and creating a Solidworks drawing of the final product

**Tutoring**, NJ, 2011-Present

- Tutoring middle school-high school students in math, physics, and grammar

## SKILLS

SolidWorks, BlueHill, Minitab, Labview, MATLAB, Tinker CAD

## PROJECTS

**Creating an Interactive Middle Ear Model**, Major Qualifying Project, *Switzerland (remote)*, August-October 2020

Working with Universitätsspital Zürich to create a functional model of the middle ear with the purpose of using it in post graduate education. The model is designed to respond to acoustic stimuli and generate data through its coupling with sensors and an Arduino.

**Maximizing the Benefit of the Mobile Eye Hospital**, Interactive Qualifying Project, *Armenia (remote)*, March-May 2020,

Working with The Armenian Eye Care Project to help the Mobile Eye Hospital maximize the number of patients it can treat by implementing lean management techniques and optimizing its route.

**Therapeutic Implant for ACL Repair and Regeneration**, October 2020 – Present,

Working on a team to design an ACL implant in the form of an embedded scaffold to stimulate ligament healing and regeneration.

## ACTIVITIES

**Habitat for Humanity (Advocacy Chair & Relay Team Captain)** WPI, November 2018-Present

**Biomedical Engineering Society** WPI, September 2017-Present

**Alpha Phi Women's Fraternity** WPI, April 2019-Present

**Intramural Volleyball and Flag Football** WPI, August 2018-2019

**Volunteering** through Habitat for Humanity and Camp Sunshine 2018-Present