

# Lucas Brecher

lucasbrecher@gmail.com / Los Angeles, CA

*Designer and prototyping specialist with 7+ years of fabrication experience in manufacturing, start-ups, and makerspaces. Proficient with CAD/CAM for objects ranging from miniature models to complex mechanical assemblies. Prototyping skills include 3D-printing, DfAM, laser cutting, CNC, analog & digital electronics, mechatronics, mold-making, casting, carpentry, and hardware hacking. Personally driven to help anyone make just about anything.*

## Experience

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*Technical Designer & Draftsperson, 11th St. Workshop*

Los Angeles, CA  
Jan. 2022 - Present

- Creates actionable 3D models & blueprints prioritizing safety, feasibility, cost and quality.
- Work has been featured in major international events including F1 races, Coachella, and FIFA World Cup games
- Tracks builds from conception to installation, considering all factors that may affect their construction, transportation and on-site assembly

*Prototyping Lab Manager, 3DEO*

Los Angeles, CA  
Sept. 2021 - Dec. 2022

- Oversaw R&D rapid prototyping lab, dedicated to improving 3DEO's metal 3D printing technology.
- Built and tested hardware prototypes, advising engineers on design decisions affecting manufacturing method, material choice, and post-processing.
- Operated fleet of prototyping hardware (3D printers, CNCs, laser cutter, shop tools), performing file prep + repair, print processing, preventative maintenance, and repairs

*Product Engineer & Makerspace Guide, Bit Space*

Chicago, IL  
Mar. 2020 – Aug. 2021

- Designed and taught curricula using professional fabrication tools and techniques, 3D printers, CAD, robotics, carpentry, game design, programming, electronics, hardware-hacking, and more.
- Used and maintained shop laser cutters, 3D printers, CNC mills, soldering equipment, woodworking power tools, and more.

*Makerspace Coordinator, Oberlin College*

Oberlin, OH  
Aug. 2017 – May 2019

- Managed all aspects of a public makerspace, hosting open office hours, helping students plan and assemble projects across disciplines.

## Education

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*Oberlin College, BA in Rhetoric & New Media*

August 2015 – May 2019

*MIT xPro, Additive Manufacturing for Design & Production*

February - May 2022

*Los Angeles Trade Technical College, Electronics Certification*

June – August 2018

## Skills

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Software - Fusion 360, Solidworks, Rhino 7, Adobe CC, KiCAD EDA, Cura, PrusaSlicer, Blender

Hardware - FDM & SLA 3D printers, laser cutters, CNCs, Arduino, digital & analog electronics, shop/power tools

General - Windows + Mac OS, Microsoft Office, Google Suite, Jira, Confluence, HTML/CSS/JS