THE REBIRTH OF MANUFACTURING INNOVATION

The advent of additive manufacturing just may be the most disruptive technological development since the Internet. Commonly referred to as 3D printing, this revolution in how things are made brings limitless potential to reshape society’s approach to grand challenges such as medicine and healthcare, energy and infrastructure, as well as design and production across nearly every category of consumer and industrial goods.

Lehigh University’s heritage of industry partnership in manufacturing systems and related research, along with expanding campus expertise and capabilities, combine to create a diverse but focused resource for collaboration and innovation across this broad and emerging field. In addition to researchers, designers, and students, our growing team includes renowned experts in entrepreneurship and the “maker space.”

Lehigh Additive Manufacturing
Lehigh University students, faculty, and external research partners utilize state-of-the-art additive manufacturing technologies to prototype design ideas, develop new materials, improve manufacturing processes, and advance research efforts.

Vat Polymerization
- FormsLabs SLA Printer

Material Deposition
- Stratasys Dimension 768
- Stratasys Mojo
- Ultimaker2 (14 available)
- Hyrel System 30M
- Lulzbot TAZ 5 and 6

Powder Bed Fusion
- Sintratec Polymer SLS
- Renishaw AM400 DMLS

Binder Jetting
- 3D Systems Zcorp 650

Material Jetting
- Stratasys Objet 30 Pro

Directed Energy Deposition
- Wire and Arc Additive Mfg (WAAM)
Lehigh's Advanced Manufacturing Interest Group
- Center for Advanced Materials and Nanotechnology (CAMN)
- Loewy Institute for Metal Forming
- Additive Manufacturing Laboratory (LUAML)
- Enterprise Systems Center (ESC)
- National Science Foundation Industry/University Research Center (I/UCRC): Manufacturing Cooperative Research Center and Materials Joining Innovation Center (MA²JIC)
- Energy Research Center (ERC)

Lehigh Additive Manufacturing Projects

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Lehigh’s custom built Wire and Arc Additive Mfg. (WAAM) System
(3x3x3 ft. build envelope)

WAAM Products
Material: mild steel
Print time: 10 hr + 4 hr cool (34lbs.)

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4/26/17