



**NextManufacturing**

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**Carnegie Mellon University**



# Motivation

- Met with over 60 companies and labs over 18 months
- 12 members of our NextManufacturing research consortium
- Common Theme: Companies need talent with AM skills at all levels
- B.S. with additive expertise is key



# On-going Efforts

- **Outreach Events**
  - Elementary, middle, high school outreach programs
  - High school teacher training
- **Combined undergraduate and graduate electives**
  - Additive Manufacturing for Engineers and Additive Manufacturing: Current Practice and State of the Art:
    - Fundamentals from maker to metals
    - Mini course with a product design project
  - Materials for Additive Manufacturing
    - Unique AM microstructures
- **Exposure for all students**
  - Currently in MechE
  - Freshman course (125+ students) begins with maker AM and laser cutting
  - Machine shop practice in year 2, then design courses



# Future Efforts

- **Maker Ecosystem**
  - **Maker experiences in MechE spread to the entire college**
  - **Scott Hall, Makerwing of Hamerschlag Hall, ANSYS Building**
- **Workforce Training**
  - **One-day course starting October 30**
- **Fall 2017: Undergraduate Minor in Additive Manufacturing**
- **Fall 2017: Master of Science in Additive Manufacturing**
  - **Both with an intensive metals AM lab**





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