



# MAKERSPACE

**FOR MORE INFORMATION,  
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**E**ngineers, architects, designers, and scientists all need a place to create – to put theory into practice, to turn ideas into reality, to learn by doing. Makerspace at NJIT, which opened its doors in December 2017, provides just that. This 21st-century training-focused, rapid prototyping and manufacturing facility allows students, faculty, and industry partners to pursue this goal in a functional and inspirational environment.

IF YOU CAN  
DREAM IT,  
YOU CAN  
MAKE IT  
AT NJIT

This 10,000-square-foot facility is the largest of its kind in New Jersey. Makerspace at NJIT houses the industrial-grade tools and technologies that today's STEM students must master in order to become tomorrow's STEM innovators and leaders. It provides them a venue in which to design, create prototypes, and fabricate with the complex technologies, machines, and materials used in state-of-the-art manufacturing. Through this process, they gain real-world experience across an array of industries, including aerospace, buildings and construction, consumer goods, communication, energy and power, and biomedicine.

Whether students are designing and modeling energy-efficient structures with CAD, programming a 3D printer to fabricate human-like tissue, or operating flow machines to create custom suspensions and gears for automobiles, they can brainstorm, collaborate, and innovate at Makerspace at NJIT with peers, professors, and private-sector mentors.



### Makerspace Focus:

- Rapid Prototyping
- 3D Printing
- General Fabrication
- Industrial Metrology
- CNC Machining
- General Machining
- Wood and Metalwork
- Advanced Manufacturing
- Electronics Assembly
- Welding

**We invite you to support Makerspace at NJIT – and the future of education at New Jersey's premier STEM-focused university.**



**1/4** 

of professional engineers in New Jersey hold a degree or graduate certificate from NJIT

### From Classroom to Workplace

Makerspace at NJIT strengthens the pipeline from classroom to workplace. NJIT's rigorous and dynamic curriculum ensures that students learn the theoretical bases for the advanced disciplines they need to master. Makerspace allows them to implement the theory, visualize it, and quite often discover its boundaries, limitations, and extensions. Explorations at the facility sharpen students' competitive edge in a region of the country with one of the highest concentrations of scientists and engineers.



**\$10 MILLION** in state support for Makerspace

### A Critical Resource for the State

Makerspace at NJIT is also a critical resource for the state, which has thrown its support behind the facility with a grant of \$10 million. Across New Jersey, the manufacturing sector is burgeoning. Economists anticipate a national trend toward reshoring of production, which will require automation and robotics of the kind exhibited and implemented in Makerspace. Businesses will undoubtedly look for highly-skilled STEM talent to move into this new phase – the kind of talent that is fostered and honed in Makerspace at NJIT. At the same time, the facility offers customized training for those currently employed by NJIT's many industry partners, ranging from small-group sessions to full-scale courses covering major manufacturing equipment and technologies.

**\$1.74 billion**

economic impact annually to the State of New Jersey

**11,353 jobs**

generated annually in the Garden State

**\$941.8 million**

research related activities

### An Investment in the Future

As a hub of innovation, invention, and production, Makerspace at NJIT burnishes New Jersey Institute of Technology's already outstanding reputation as one of the nation's leading polytechnic universities – and moves it further to the fore of STEM education in New Jersey. The continued evolution of an advanced workshop of this magnitude hinges on the quality of its care. The need for specialized upkeep will continue to grow as the space expands and technology evolves. Such growth and expansion require significant ongoing investment in trained personnel, specialized materials, and cutting-edge machinery and equipment. To meet this need – to ensure that Makerspace at NJIT is able to adapt to curricular, research and development, and workforce needs – NJIT is establishing an endowment fund to support this new flagship facility. The goal is to raise \$2 million.