

In September 2016, construction was completed on the Marauder Innovation Learning Lab (MiLL) at Mount Olive High School. The MiLL is comprised of three distinct yet interconnected learning and exploration modules: The ThinkerSpace, the Workshop and The MakerBot Innovation Center.

In both The ThinkerSpace and Workshop, students have the opportunity to collaborate and create prototypes of their designs. Students learn about the Design Process: research, ideation, sketching, prototyping, testing and iterating. They have access to a wide variety of tools and materials to make their vision become a reality.



The MakerBot Innovation Center allows students to use software programs and one of the thirty-three MakerBot 3D printers to print their products. Mount Olive High School is the only secondary school in the world to feature a MakerBot 3D Innovation Center, offering students the opportunity and resources for "making what's next". There is no doubt the MiLL has become preeminent in STEAM education and a 21st century college and career readiness facility.

## Our Mission

It all starts with an idea. . . that will be cultivated by our innovators' imagination, skills, and talents into a reality. By melding art and design concepts, our scholars will embrace challenges as critical and creative thinking practices help them realize that mistakes are opportunities for improvement. Thus, our innovators are empowered to explore, collaborate, build, and design potential products for the good of humanity. Ultimately, they will become confident and compassionate global leaders.

# THE MiLL



Marauder  
Innovation  
Learning  
Lab



*The MiLL features the only  
MakerBot Innovation Center  
in a High School in the world!*

Contact us at  
[mill@motsd.org](mailto:mill@motsd.org)

or visit  
[makingwhatsnext.com](http://makingwhatsnext.com)

# MAKING WHAT'S NEXT

In addition to the MiLL, construction was also completed on our state of the art sound studio, which features a performance area, recording booths, and audio engineering equipment. This sound studio can be used by the choirs and instrumental groups at MOHS to perform, record music and learn how to use professional sound equipment.



Mount Olive High School  
Flanders, New Jersey



## Engineering I & II

- A survey of current engineering fields of practice and potential career opportunities
- An introduction to 3D solid modeling design software to solve proposed problems
- Documenting work and communicating solutions professionally
- Research and analysis, teamwork, communication methods, global and human impacts
- Advanced modeling and sketching techniques
- Creating intricate parts and assemblies
- Printing 3D models of students' designed parts

## Industrial Design I & II

- An introduction to the Design Process, from concept to prototype, of innovating creative products for consumer use
- Skill building in sketching, physical modeling, 3D modeling, creative thinking and collaboration
- Considering the impact of their designs as they relate to a variety of cultural, social and personal needs
- Exploration of "Incremental Innovation," which is taking an existing product and improving it in purposeful ways
- Exploration of the historical movements in Industrial Design and their effects on humanity



*"Our mission is to build a culture of innovation and creativity at Mount Olive High School, while strengthening problem-solving skill sets and real world connectivity. The MiLL is a place for students to participate in the culture of making and to experience the technical entrepreneurship process from concept to manufacturing and production."*

*Mr. Kevin Stansberry,  
MOHS Principal*

