

The Laboratory

Spaces for Research & Discovery

Lab Space is as varied as the human personality, every client or research group is looking for their space to perform a task whether it is more generic like fabrication space or shared wet lab space or highly specific like flight cages for drone R&D or laser deposition equipment. Each typology requires a uniquely tailored set of spatial requirements, sequence of operations, and equipment considerations to be successful.

Meeting these parameters requires listening more than speaking—and careful collaboration with clients, research groups, equipment suppliers and specialists, and industry leading consultant teams. Our role is managing and balancing all of these experts to arrive at a coherent and effective solution.

OUR APPROACH

Team Building. Thoughtful selection of collaborators—MEPFP, process engineers, and specialty lab planning consultants—is key for finding the right team to fit the specific need of the lab.

For example, while working on a Cold Spray Lab, protocols for handling combustible dust had to be set in place to avoid fire protection equipment which would have required the design team to double the footprint of the lab. Rather than default to an oversized and costly fire protection solution, we were able to bring in an expert life safety consultant to design safe-handling procedures to limit the exposure of combustibles and “right-size” the protectives to the specific operations that our client needed.

Research & Inform. Diligent research and information gathering on the specifics of the lab environment and the technical and spatial requirement is critical to a successful project.

When engaged to work on a UAS (drone) Lab, the research required everything from a 2,500 SF, 20-foot tall Faraday Cage / Anechoic Chamber to a 30K SF, 60-foot tall outdoor flight cage. We worked with the equipment suppliers to understand base building modifications to support the structure of the chamber and how typical building systems (sprinklers, lighting, ventilation) can interface with a high performance environment.

No “One Size Fit.” Laboratory space should be tailored to suit the university or research group based on their specific needs and methodology and every group has a different mission and approach.

In designing shared lab space for the Venture Creation Center we learned that the wet lab space needed to function for multiple startup companies. Many of the prospective companies would be using the space for indefinite periods of time and the typical startup is in need of affordable lease space, so the investment in the lab space needed to fit the leasees. To meet these needs the lab benching was sourced locally and standard sizes where used to make simple benchtop space. Exposed plumbing was neatly racked with unistrut in between lab benching to build upon a simple, industrial aesthetic.



OUR LAB TYPES

Wet Labs

- Battery Lab
- Lyophilizer Lab
- Molecular Lab
- Venture Creation Center (Incubator)

Fabrication and Testing Labs

- Advanced Manufacturing Lab
- Cold Spray Metal Lab
- Electron Microscope Lab
- Electronics Lab
- Engineering Design Studio
- Engineering Materials Testing Lab
- Fabrication Center
- Makerspace Lab
- Materials Processing Center
- Medical Device Manufacturing Lab
- Mobile Device Forensics Research Lab
- Unmanned Aircraft System (Drone) Lab

Teaching Labs

- Cognitive Lab
- Crisis Response Simulation Lab
- Cyberforensics Computing Lab
- Lab for Financial Engineering
- Neuro Lab
- Nuclear Science Lab
- Psychology Lab
- Physical Therapy Rehabilitation Lab
- Veterinary Technician Teaching Lab
- War Room Simulation Lab

Nanotech Labs

- Laser Deposition Lab