

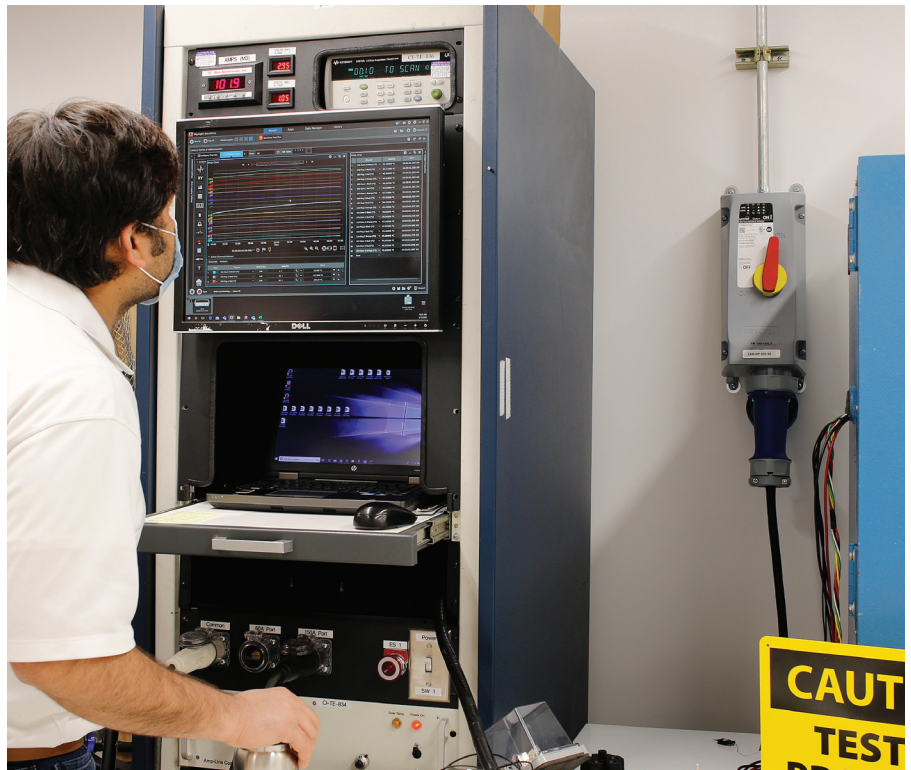
Taking product development to new heights with a complete and innovative offering of Industrial Wiring Devices from Leviton

The engineering department of a large manufacturer located in North America recently dedicated several months to upgrading its product development and engineering lab. When construction planning began, Leviton Manufacturing supported the necessary electrical and data infrastructure with state-of-the-art networking and energy management solutions, the latest in commercial lighting and some of the industry's most innovative electrical wiring devices.

Supporting new product development and sustaining product engineering, the lab performs various engineering tests including industry and internal standard testing to ensure devices meet or exceed performance and quality requirements. While industry standard testing involves meeting minimum device performance requirements held by agencies, internal standard testing is designed to exceed agency testing requirements. The lab also conducts internally developed experiments involving predictive engineering



Leviton's commercial & industrial wiring devices help the lab improve safety and productivity



analytics, simulating a specific condition over an accelerated time to assess the products long-term performance. The various tests conducted in the engineering lab can be categorized into mechanical (i.e., impact testing, abrasion testing, ON/OFF cycling, etc.), electrical (i.e., electrical current testing, software testing, etc.) and environmental (i.e., thermal chamber testing, UV testing, water submersion testing, chemical exposure testing, etc.).

In order to conduct these vigorous tests routinely, the engineering lab requires access to dependable electrical sources. The recently updated lab now has access to 3-phase power at 120/208 V and 277/480 V, allowing the team to develop and perform innovative experiments and tests that were not previously possible. In addition to the power upgrade, a variety of

Leviton solutions are integrated into the main infrastructure. Leviton's commercial & industrial wiring devices help the lab remain safe and productive in its day-to-day operations.



Complete Offering of Industrial Wiring Device Solutions

Project Case Study Engineering Lab & Testing Facility

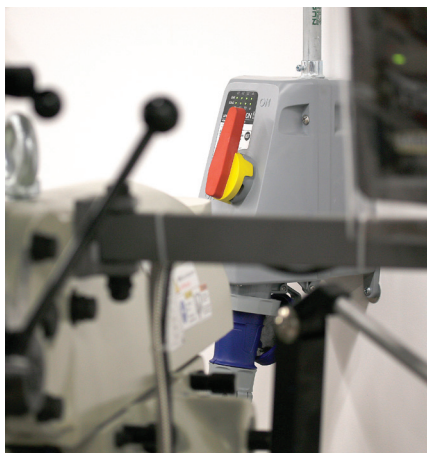
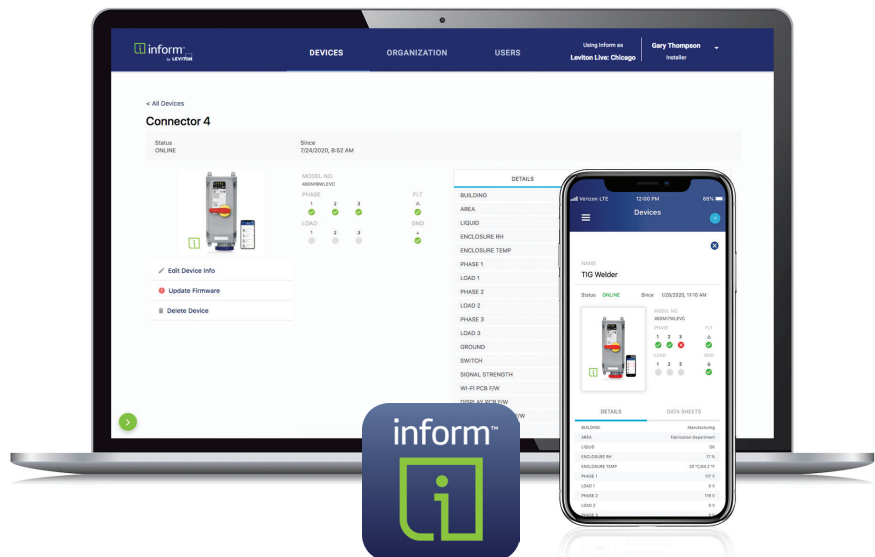


LEV Series Mechanical Interlocks with Inform™ Technology

Incorporating a safety disconnect switch into an IEC 60309 receptacle in a non-metallic watertight enclosure, these devices prevent the making and breaking of power under load. Because much of the testing equipment in the engineering lab is moveable, the engineers required mechanical interlocks instead of hardwired disconnects, as mechanical interlocks allow for moveable power. For example, the lab's thermal measuring rack is mobile, so all the engineers need to do is roll the rack up to a stationary machine and plug it in, providing the space with flexibility. Because the devices are embedded with Inform Technology the engineers benefit from remote monitoring.



By using Leviton devices with Inform technology, it allowed us 24/7 access to devices that were used to power up testing equipment that would often run for days, weeks or even months at a time.



Using the Inform app, the team has 24/7 access to device insights, such as enclosure temperature and humidity, line- and load-side voltage values, liquid accumulation, ground continuity and more. This data can be viewed anywhere – from across the lab, across the building, or from

the comfort of their own home. This allows the engineering team to quickly diagnose and respond to potential problems, minimizing any unplanned downtime and allowing the lab to maintain high productivity levels.



LEV Series Plugs and Connectors with Inform™ Technology

The lab is equipped with several IEC 60309 plugs and connectors providing safe and reliable power connections. Designed with several features to simplify installation, including a quick-lock pin, captive screws and threaded housing, the LEV Series benefited the engineering team during the lab upgrade as it was significantly faster to wire and assemble LEV Series plugs and connectors versus competitive devices. Embedded with Inform Technology, the plugs and connectors offer visual power indication allowing the engineering team to determine if power is present from across the room, illuminating as a safety precaution. The power indication also allows for faster troubleshooting when there is a problem with connected equipment, minimizing downtime.

“ It was significantly faster to wire and assemble the devices versus competitive devices ”



Powerswitch® Safety Disconnect Switches

These devices allow the engineering team to safely disconnect lab equipment from their respective power sources, providing peace-of-mind when conducting maintenance as they know the circuit is completely de-energized. Enclosed in non-metallic PBT, the disconnects resist any impacts from the lab, while the long length overmold handle provides a firm, non-slip grip. Strategically placed next to critical motors and equipment, these disconnect switches improve safety in the engineering lab.

GFCI Receptacles with Power Indication and Audible Alarms

To maintain proper code compliance, GFCIs were installed in the environmental area, close to sinks and other water supplies. Not only do these devices help protect against electrical shock, but the audible alarm and power indication LED further enhance safety in the lab. An audible alarm will indicate if the device trips, allowing for quick diagnostics and troubleshooting. This helps ensure the lab operations are safe, especially when supplying power on large, critical equipment. Further improving safety, Leviton's patented Reset Lockout mechanism prevents the devices from being reset if they are damaged and cannot respond to a ground-fault.



Complete Offering of Industrial Wiring Device Solutions

Project Case Study Engineering Lab & Testing Facility



Black & White® Locking Devices

To securely power smaller testing equipment throughout the lab, the engineering team utilizes Black & White® plugs and connectors. Locking configurations prevent accidental unplugging, improving safety and productivity in the lab. The team decided on these devices as they provide better gripping and are fast and easy to assemble. Backed by an industry-leading limited lifetime warranty, these devices are built to last. These plugs and connectors are paired with wire mesh grips to provide the ultimate strain relief.

“ The team decided on these devices as they provide better gripping and are fast and easy to assemble ”



Surge Receptacles with Audible Alarms

Because the lab utilizes sensitive electronic instruments, it is critical they protect the equipment's integrity. Surge receptacles are considered type 3 surge protective devices (SPDs) and protect testing apparatus from dangerous voltage transients. An audible alarm will indicate if surge protection is lost, notifying engineers that the receptacle no longer has the ability to protect their equipment, improving safety in the lab and avoiding costly downtime due to equipment damage.

Medical Grade Power Strips

Medical Grade Power Strips help bring power from a wall receptacle to a work bench or below work desk stations in the lab. Instead of using standard power strips, the lab decided to use medical grade devices as they are more robust and durable. Hospital grade outlets and plugs ensure a dependable performance, all encased in heavy-duty steel construction. These power strips, which the engineering team opted to get with surge protection, protect sensitive electronic equipment from damaging voltage transients. Additionally, built-in overload protection shuts off the strip in the event of excess power draw.

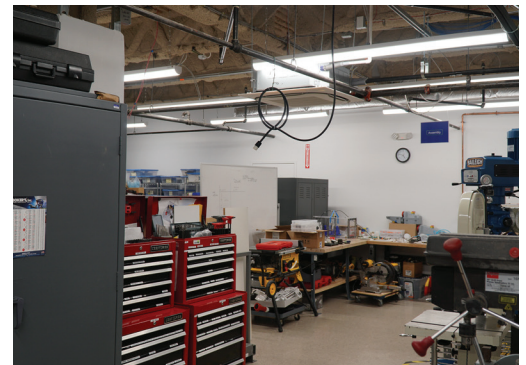


Complete Offering of Industrial Wiring Device Solutions

Project Case Study Engineering Lab & Testing Facility



In addition to installing a variety of Leviton commercial and industrial electrical wiring devices, the engineering lab integrated Leviton lighting solutions into the main infrastructure. The lab is illuminated with a mix of Birchwood LED Linear Fixtures and Intense LED Down Fixtures, providing a bright and clear environment for the engineers to maintain productivity. Operated with switch controllers and dimming and occupancy sensors, these fixtures provide efficient energy savings to the company's bottom line. In addition to Leviton lighting, the lab utilizes Leviton Network Solutions to provide data to phones, computers and other pieces of equipment that rely on network access.



To learn more about Leviton solutions, including electrical wiring devices, lighting energy management, and networking solutions, visit www.leviton.com

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