

Press Release (For immediate release)

MacLean Engineering and Maestro Digital Mine bring underground connectivity to the MacLean Research and Demonstration Facility

Sudbury, ON. Canada - September 15, 2020 MacLean Engineering continues to advance its innovative Research and Demonstration Facility in Sudbury, Ontario, Canada. MacLean, in collaboration with Maestro Digital Mine, recently integrated the Plexus PowerNet™ - a gigabit network providing both data and power using coaxial cable throughout the mine to enable connectivity underground.

The MacLean mobile equipment R&D lab allows the company to develop and test new mining technologies completely in-house. The underground test facility consists of a 300m (1,000 foot) decline (at an average grade of 15%) that branches into multiple headings and testing areas. The facility comes with additional shop and office space providing MacLean engineers and operator trainers the ideal setting for putting mining innovation theory into practice.

Maestro Digital Mine works with mining companies around the world to address the challenges associated with traditional communication backbone solutions (broadband and fiber). MacLean identified the value and benefits of Maestro's backbone network solution and worked with the team at Maestro to install the system. The Plexus PowerNet™ quickly and simply extends the mines existing communications network to the face.

"Collaboration up and down the supply chain is critical to making innovation happen in the underground mining sector at home and around the globe," notes Stuart Lister, MacLean's VP Marketing and Communications. "We're delighted to work with another company in Greater Sudbury's mining ecosystem, Maestro Digital Mine, to get their top-of-the-line digital infrastructure installed at our Research and Demonstration Facility where it will be backbone of our automation product development."

Plexus PowerNet™ delivers a high speed, low latency digital communication network that provides PoE+ power to Access Points (APs), cameras and other IP based devices. The system eliminates the need for costly outside fiber optic contractors and can be installed and maintained by any internal tradesperson or development miner. The Plexus PowerNet™ can be used in mines with or without a fiber optic network. It supports existing underground mine infrastructure and provide network connectivity to new IIoT devices and automation technologies for Digital Mines, such as the MacLean R&D Facility.

Plexus provides a robust, simple to deploy, one cable solution for network connectivity. Plexus makes installation simple, using a single coaxial cable that carries both power and network

connectivity. This eliminates the need to run both fiber and power to new network devices. The EZ Advance Nodes provide an easy way to terminate, troubleshoot and deploy industry standard IP devices from the Plexus PowerNet™ embedded network switch. The Plexus has been designed for the quickest “last mile” of communication.

Michael Gibbons, Co-founder and CEO, Maestro Digital Mine, remarked that, “Our vision for the Plexus is to change the way that underground mines communicate and to strip out complexity in automation jobs and make configuration flexible and easy. We strive to make the complex, simple. Working with MacLean Engineering, the Plexus accelerates their time to connectivity and enables MacLean to bring in other new and innovative digital technologies and automation equipment for testing and demonstration at their Centre. We are honoured to be part of the MacLean R&D Facility. This underground R&D lab continues to build upon the strength and wealth of mining knowledge and expertise in Greater Sudbury and Northern Ontario.”

To learn more about the Plexus PowerNet™ visit:
<https://www.maestrodigitalmine.com/products/plexus-powernet>

-30-

About MacLean Engineering:

MacLean Engineering designs, manufactures, markets, and supports engineered solutions across the mining, municipal, environmental, and industrial goods sectors. The company’s mining division builds a comprehensive line of mobile equipment for full-range mining cycle support across all underground mining methods in ground support, ore flow, and utility vehicle product categories. Founded in 1973, MacLean is based in the southern Georgian Bay region of Ontario, with branch offices across Canada as well as in the US, Mexico, Peru, South Africa, and Australia, providing service and support to a global client base. www.macleaneengineering.com

About Maestro Digital Mine:

Maestro Digital Mine manufactures Industrial Internet of Things (IIoT) measurement and control instrumentation for the optimization of underground mine ventilation and underground digital networks for last mile of communication. Our products are made exclusively for the underground mine automation, IT and ventilation sectors that delivers energy savings and productivity improvements while meeting the highest health and safety standards. www.maestrodigitalmine.com

MacLean Engineering Contact:

Stuart Lister
VP Marketing & Communications
C: (705) 241-3247

Maestro Digital Mine Contact:

Shannon Katary
Director of Marketing and Communications
C: (705) 521-2261