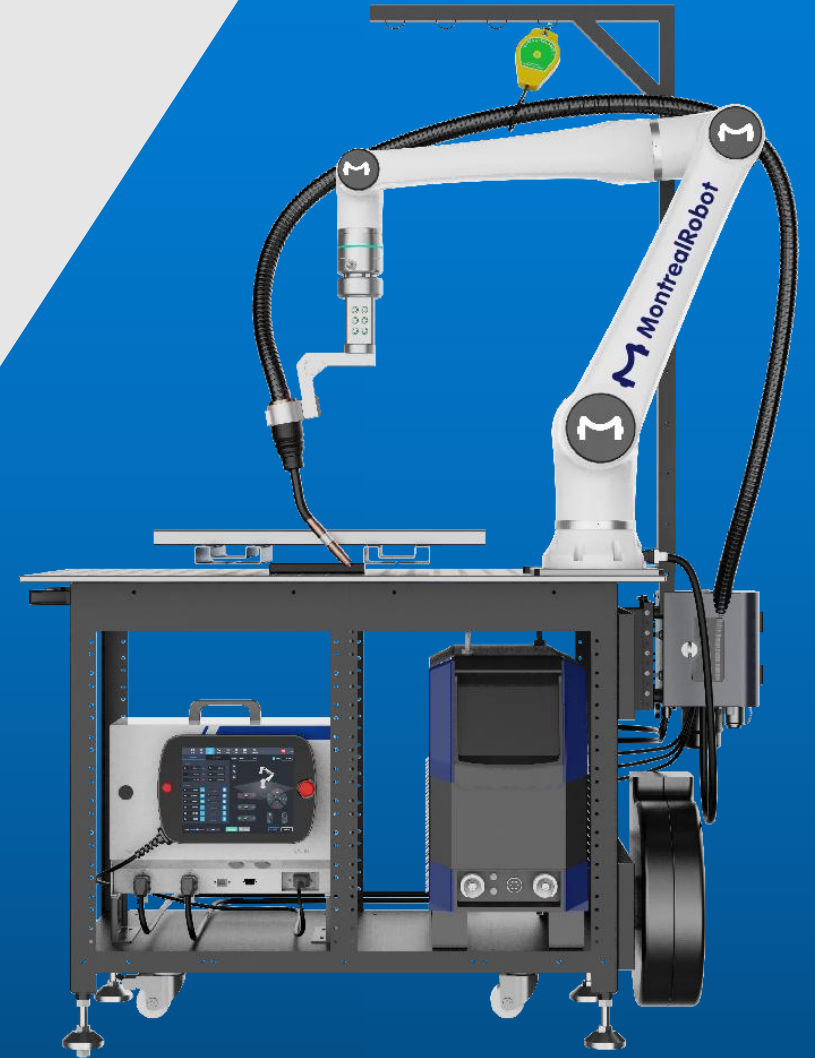


Automated Welding Workstation

**“Welding Perfected:
Boost Your Workshop
Performance
with Cobots”**



Montreal Robot Inc.

Sales Dept: sales@montrealrobot.com
www.montrealrobot.com



"Welding Woes: Head-Scratching Challenges."

While manual welding production has been a longstanding method in the manufacturing industry, it's important to acknowledge its drawbacks that have led to the exploration of more advanced alternatives. Here are some notable drawbacks associated with manual welding production.



Labor-Intensive: Manual welding requires a skilled workforce that undergoes extensive training. This translates to higher labor costs, especially for industries dealing with high production volumes. Additionally, the physical demands of manual welding can lead to worker fatigue and potential health issues.



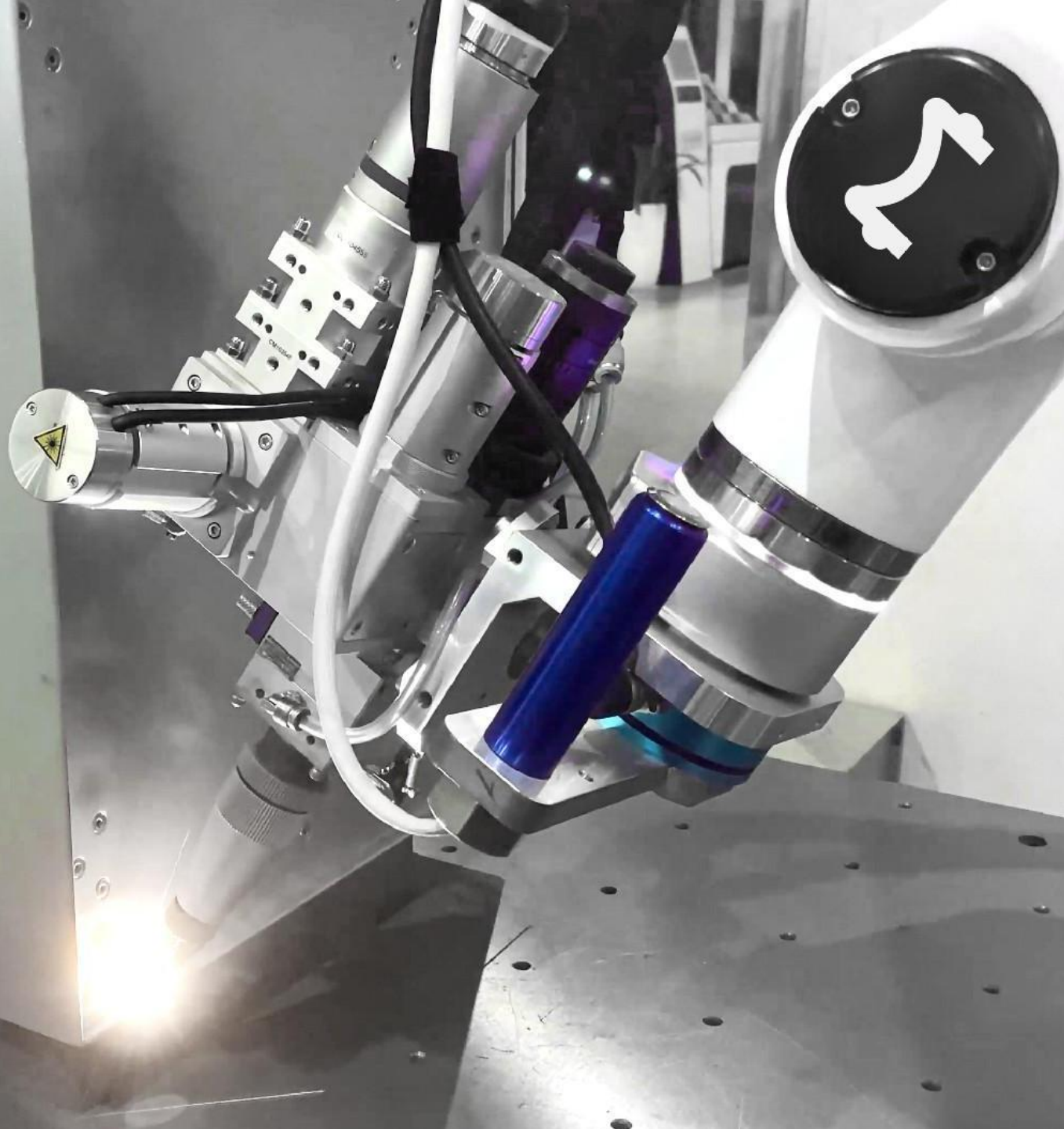
Inconsistency in Quality: Manual welding heavily relies on the skill and experience of individual welders. As a result, there can be variations in the quality of welds produced by different operators, leading to inconsistencies and potential defects in the final products.



Scalability Challenges: As production demands increase, scaling manual welding operations can be complex. Hiring and training additional welders to meet higher volumes can strain resources and lead to delays.



Safety Concerns: Manual welding involves exposure to hazardous materials, intense heat, and potentially harmful fumes. Despite safety measures, there remains an inherent risk to human welders working in such conditions.



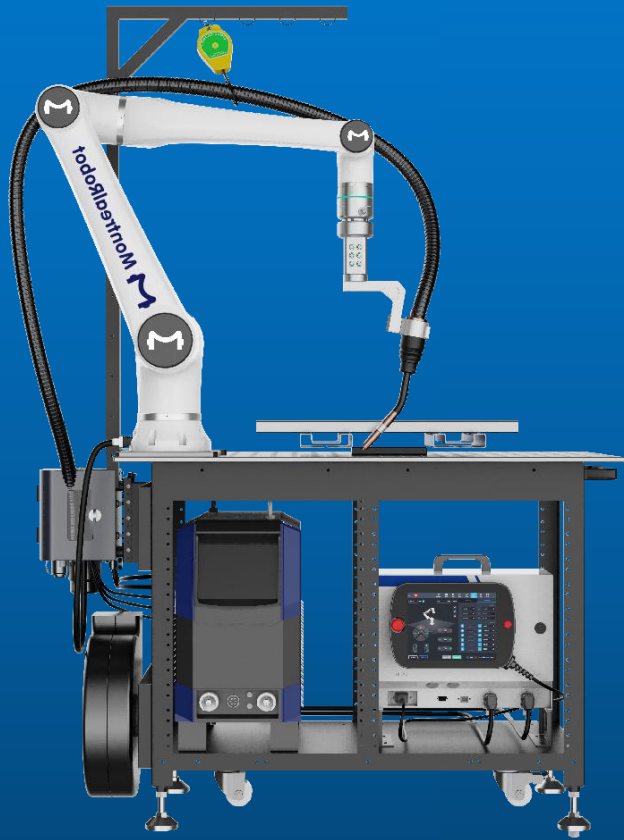
**“Embrace Cobot Welding
No More Head-Scratching,
Just High-Fives!”**

“At Your Service, Our Versatile Cobots Legion Lineup”

COBOT SERIES				
	MR10	MR10L	MR12	MR15
Axis	6	6	6	6
Payload	10kg	8kg	12kg	15kg
Reach	1000mm	1300mm	1800mm	1300mm
Weight	43kg	45kg	65kg	60kg
IP Classification	IP54	IP54	IP54	IP54
Cable Length	5m	5m	5m	5m
Repeatability	±0.03 mm	±0.03 mm	±0.05 mm	±0.05 mm
Max. Speed	2m/s	2m/s	2m/s	2m/s



“All-In-One, Automated Welding Workstation”



Our groundbreaking All-In-One automated welding workstation represents a paradigm shift in traditional welding production methodologies. By seamlessly integrating collaborative robots into the process, we are proud to introduce a new era of enhanced precision, unparalleled consistency, accelerated production rates, substantial labor cost reductions, and elevated workplace safety within the industry. This innovation not only effectively addresses the limitations of manual welding practices but also propels enterprises towards a future defined by heightened competitiveness and operational efficiency.



Cobots: Through the incorporation of integrated end force control and cutting-edge machine vision technology, our system provides a streamlined and efficient control mechanism. This results in time and effort savings, ultimately leading to a remarkable enhancement in production efficiency.

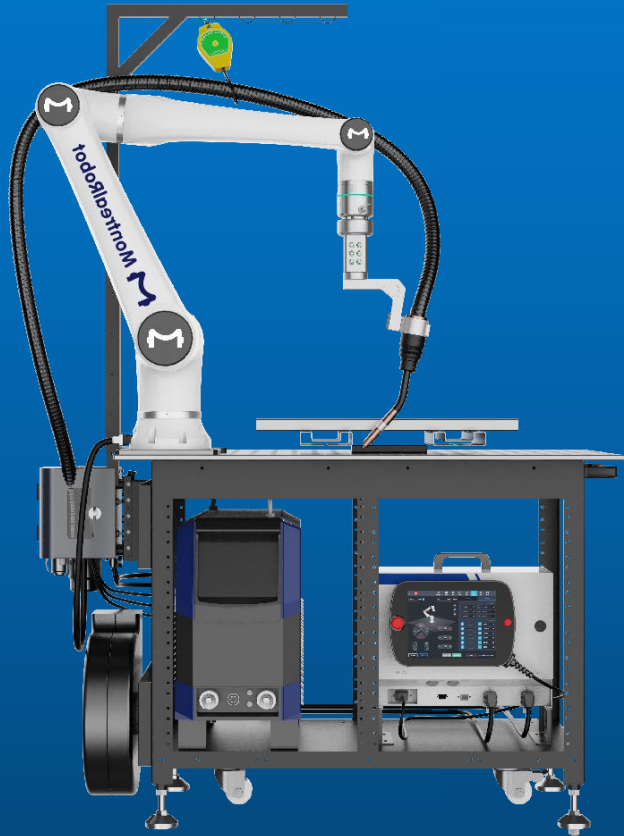


Welder: Characterized by an open and interoperable design, our system seamlessly interfaces with prevalent welder models. It facilitates unrestricted transitions between pulse and direct current (DC) welding modes, guaranteeing optimal stability throughout the welding processes.



Software: Our software design employs graphical programming, enabling rapid setup procedures achievable within a mere 10-minute timeframe. The user interface is designed to be intuitive, ensuring a hassle-free learning curve and straightforward application for users.

“All-In-One, Automated Welding Workstation”



Constituent Components of the Automated Welding Workstation



Cobot



Teaching
Pendant



Wire
Feed



Welding
Torch



Welder



Our system boasts an open design that effortlessly integrates with a wide array of prevalent welder brands. This advanced feature simplifies the process of transitioning between pulse and direct current (DC) welding modes, ensuring a seamless shift that guarantees optimal stability throughout the entirety of welding processes. This adaptability underscores our commitment to providing a comprehensive solution that enhances both operational efficiency and welding quality.

MEGMEET

**ABICOR
BINZEL**

AOTAI

Fronius

LORCH

**LINCOLN
ELECTRIC**

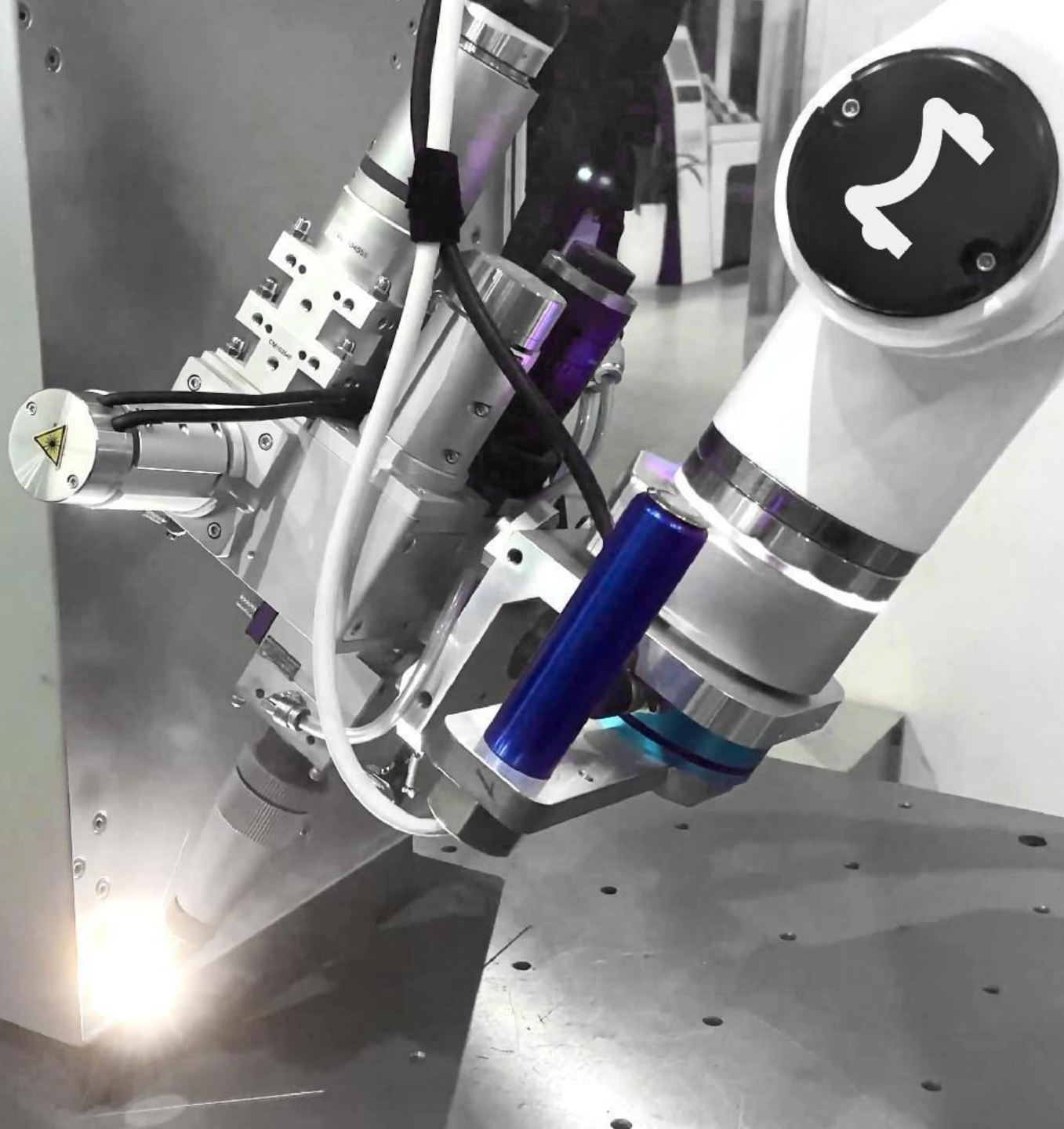
**Panasonic
INDUSTRY**

ESAB

KEMPPPI

WeldTec

Miller



“No Easier Way for A Welding Job”



Drag-and-Drop Teaching: Simple operations confer the capacity to carry out both linear and circular welding procedures. Our software framework is equipped with comprehensive integrated end force control functionality, affording users the seamless ability to effortlessly manipulate the welding torch to the designated welding focal point. Facilitated by the terminal button, users can expeditiously instantiate welding tasks, define circular or linear path selection, and configure arc initiation and cessation parameters. This streamlined approach supports the reusability of actions through a singular drag-and-drop action.



Laser Vision Seam Tracking: Utilizing laser vision seam tracking, real-time correction of welding deviations is achieved, facilitating automated seam tracking. The laser vision seam tracking system promptly rectifies welding irregularities, ensuring continuous alignment of the welding torch with the seam's center during motion. This seamless integration enables automated seam tracking, consequently enhancing the overall welding quality.



Arc Tracking: An arc tracker collaborates synergistically with the robotic system to acquire the relative positional data of the welding torch and the groove. This is accomplished through the collection and subsequent processing of arc signals, thereby effecting precise corrections to any deviations encountered within the pre-defined robotic trajectory.



“So-easy” Plugin: Our offering encompasses a straightforward welding plugin characterized by simplified installation procedures and user-friendly functionality. The interface is adept at catering to visual and graphical operational requisites, fostering a harmonious human-machine interaction paradigm that culminates in an enhancement of production efficiency.

Contact Us

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