

# ROBOTIC WELDING MADE SIMPLE

WolfArc™ Software Solutions for Power Wave®





# ROBOT & POWER WAVE BECOME ONE

With WolfArc, the ABB® robot and Lincoln Electric® Power Wave® become so integrated it's as if they're are fused together as one element.

WolfArc delivers the next generation of robotic welding technology with proprietary software enabled communication between the Power Wave and the ABB robot controller. WolfArc produces high quality welds quickly, easily and intuitively.

Weld development is simplified to two easy steps. Inexperienced welders can master setting weld parameters without manuals or guidance. Just select your weld size and material thickness and WolfArc will instantly access weld knowledge in the Power Wave and recommend weld settings and robot motion parameters.



# A BETTER WAY TO WELD

# Integration

Complete synchronization between ABB welding robot motion and Power Wave welding waveform.

# Weld Development Interface

Delivers an easy and fast way to develop new welds. All you need to do is select joint type and metal thickness. You can easily tune and adjust parameters as needed with WolfArc's tuning module.

# Ease of Operation

Built in Power Wave weld templates allow less experienced welders the ability to achieve excellent weld results quickly. WolfArc software leverages The Welding Experts® Lincoln Electric's 100+ years of welding knowledge and puts it at your fingertips.

#### Modular

Software modules available for TouchSense, Through-the-Arc tracking, Stitch Welds, Multi-Pass, Weld Quality Monitoring and Adaptive Joint Filling for heavy welding.

# Increase in Productivity

No manuals needed, user is guided through weld parameters selection, saving time in weld development. Spend less time programming & testing and more time welding.

### Reduce Spatter

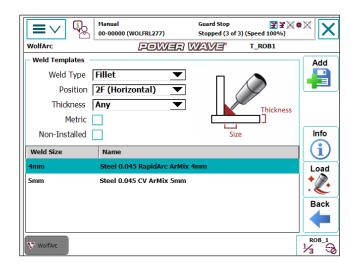
Ultra precise welding waveform control synchronized with robot waving to reduce spatter.

# TAKE CONTROL OF YOUR WELDS IN 2 STEPS

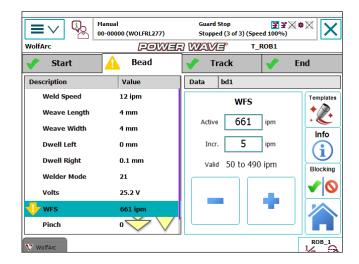
#### WOLFARC SOFTWARE EASE OF USE

Intuitive welding controls at your finger tips. The Interface provides descriptive system messages, detailed information about the weld parameters, current status and, weld configuration screens, so you can focus on welding rather than using manuals and looking up weld settings.

#### 1. Define Weld Size and Material Thickness



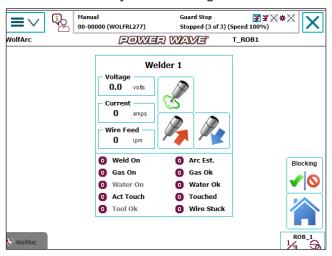
#### 2. Fine Tune & Adjust Weld as Needed



# WELD PARAMETER MANAGEMENT

# **Actively Monitor Welding**

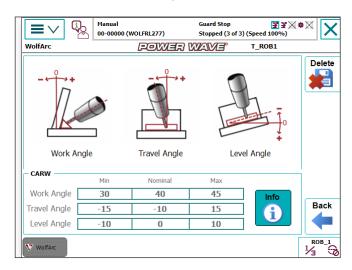
Easily monitor amperage, voltage, wire feed speed, wire feeder motor current, torch stick out and adjust weld settings as needed.



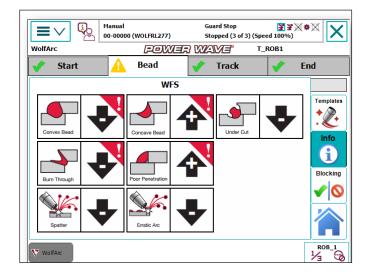
# TORCH ANGLE DISPLAY

# Welding Torch Angle Viewer

Programmer can easily view work angle, travel angle and level angle for a smooth and consistent weld path.



# NO MANUALS NEEDED WITH DETAILED PARAMETER INFORMATION



# OPTIONAL SOFTWARE MODULES

We understand every part comes with different welding requirements and every customer has their own way of getting the job done. With our optional software modules, we can customize the solution to meet your specific needs.

#### TouchSense Module

TouchSense is available in both tactile and spot sensing options. TouchSense allows for in-production adjustments to be made to help ensure accurate weld placement when there is variances in parts. With tactile TouchSense voltage is used via the wire or nozzle to perform a search and automatically move the torch to the weld joint start point. TouchSense with spot is for non-contact applications and uses a camera & laser technology to detect part variances. Spot TouchSense requires additional hardware.

We highly recommend TouchSense tactile or spot for welding applications with possible part variance.

# Through-the-Arc Tracking Module

Through-the-Arc Tracking is available in both standard and advanced versions. With Through-the-Arc Tracking the robot will automatically correct itself based on live measurements being made during the welding process to ensure the torch is centered within the weld joint. Standard Through-the-Arc tracking is a very popular option, providing tracking in 3 directions; up, down and vertical. Advanced Through-the-Arc Tracking provides additional tracking modes including the ability to track one side of a joint which is helpful for lap welds.

#### Stitch Weld Tools Module

Our Stitch Weld Tools takes the tedious, time-consuming work out of programming stitch welds. With Stitch Weld Tools all you need to do is program one start, how long you want the welds and how far apart you want the welds. It's that simple. The time-savings Stitch Weld Tools provides is well worth the investment.

#### Multi-Pass Weld Module

Easily program stacked welds with our Multi-Pass Weld Module. Multi-Pass Weld enables you to offset welds based off of the first-pass and weld size. You'll save time and increase productivity by not having to program each weld pass.

Multi-Pass Weld is highly recommend for parts with large joints.



CUSTOMEI	R ASSISTANCE POLICY
Lincoln Electric for information or advice about their use of our products. Our employees respond to inquiries to the best of their ability based on verify the information provided or to evaluate the engineering requirements for the particular weldment. Accordingly, Lincoln Electric does not expand, or alter any warranty on our products. Any express or implied warranty that might arise from the information or advice, including any im Lincoln Electric is a responsive manufacturer, but the selection and use of specific products sold by Lincoln Electric is solely within the control of,	cutting equipment. Our challenge is to meet the needs of our customers and to exceed their expectations. On occasion, purchasers may ask information provided to them by the customers and the knowledge they may have concerning the application. Our employees, however, are not in a position to warrant or guarantee or assume any liability with respect to such information or advice. Moreover, the provision of such information or advice does not create, plied warranty of merchantability or any warranty of fitness for any customers' particular purpose is specifically disclaimed.  and remains the sole responsibility of the customer. Many variables beyond the control of Lincoln Electric affect the results obtained in applying these types of
fabrication methods and service requirements.  Subject to Change — This information is accurate to the best of our knowledge at the time of printing. Please refer to www.lincolnelectric.com fo	r any updated information.
All trademarks and registered trademarks are the property of their respective owners.	
	WolfRobotics, A Lincoln Electric Automation™ Company