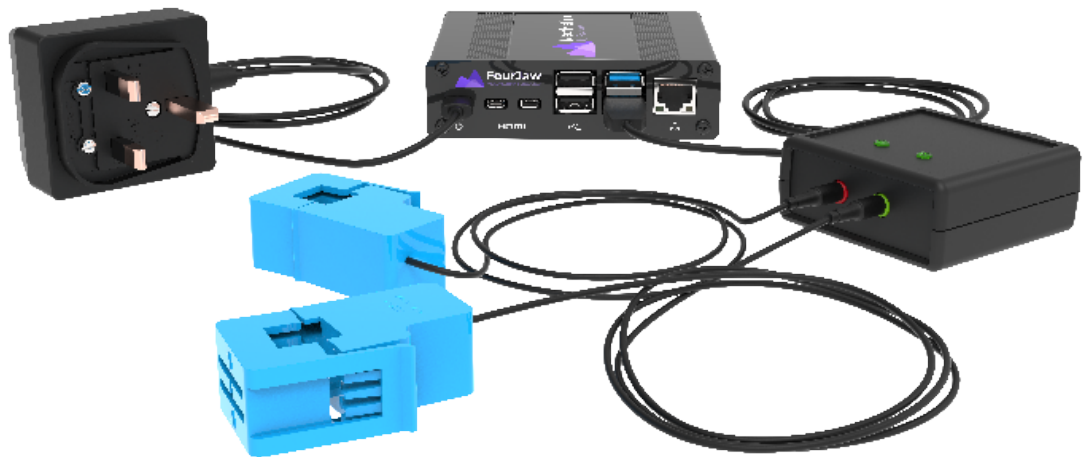


# MachineLink

## Installation Manual



Our MachineLink sensor simply clips on to any Machine of any age and only requires power and WiFi.

English



## WARNING

Working inside Machine electrical cabinets can be dangerous. Installation of the MachineLink should be conducted by a competent person who can safely install equipment inside an electrical cabinet.

Please read all instructions before beginning installation. These guidelines are provided in good faith to help prevent any problems caused by errors in installation. FourJaw Manufacturing Analytics Ltd shall not be held responsible for installation actions taken or not taken. There are some details of installation that are assumed to be general electrical knowledge to experienced installers; which are not included in these instructions. All Machines are different and it is the sole responsibility of the installer to determine which actions are safe to perform for the particular Machine they are working with.

These installation guidelines are intended to be strictly recommendations and are not to serve as a fail-safe installation checklist. Selection of an experienced installer is the sole responsibility of the customer. FourJaw Manufacturing Analytics Ltd does not accept any responsibility for product failure resulting from or associated with improper installation.

## CONTACT FOURJAW SUPPORT

If you have any questions or require support at any time during the installation process, don't hesitate to contact FourJaw support at the email address **[support@fourjaw.com](mailto:support@fourjaw.com)**



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# ITEM CHECK LIST



## Current Clamps x2

Sensors that can be used to measure the electrical current draw of your machinery



## Cable Clips x6

To keep cables tidy and route them safely around your machinery



## USB Cable x1

To connect the SensorBox to the MachineLink



## Extension Cable x1

To extend the reach of one current clamp



## SensorBox x1

Plugs into Current Clamps to collect and send data to the MachineLink via USB



## MachineLink x1

The main computational unit that securely sends your data to the FourJaw Platform



## Power Supply x1

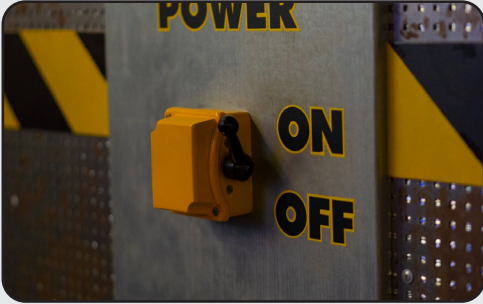
Powers the MachineLink from a 3 pin (UK) socket.



## Wi-Fi Adapter x1

Plugs into the MachineLink to increase Wi-Fi signal strength

# INSTALLATION GUIDE



## 1. Isolate electrical supply

Locate the Machine you want to install the MachineLink on and **fully isolate the electrical supply**, following the warning and disclaimer above.



## 2. Identify the Machine

The MachineLink arrives pre-configured for each individual Machine. Make sure the label on the back of your MachineLink matches the Machine you're installing on.

Next you'll need to open up your electrical cabinet to identify where to place the current sensors. Follow the guides below to get the correct sensor placement.

### Clamp Sizing:

Occasionally, you may find that the wires in your machine are too large for the provided current clamps. If this is the case, get in touch with FourJaw Support (see contact details) and we will send you larger current clamps.



## 3. Main Electrical Supply Sensor

The first current sensor always goes on the main supply of your machinery, and plugs into the GREEN input of your SensorBox. (*See image on step 5*)

To find the main supply, look for the isolator switch on your machinery – you will see three wires going into the top, and three coming out the bottom. Place a current clamp around one of these three phases. It does not matter which of the three phases you choose.

Do not clamp the sensor around the Earth cable.

# INSTALLATION GUIDE



## 3. Continued...

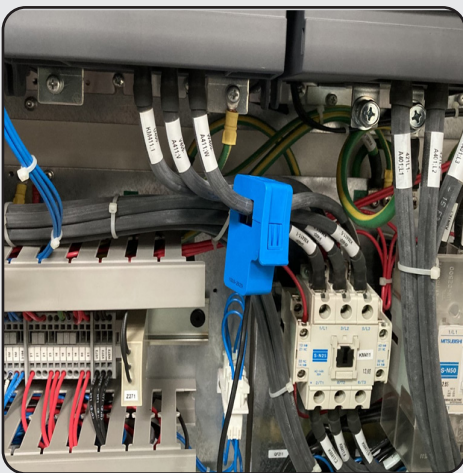
### Placing the Second Current Clamp:

The current sensor, which plugs into your SensorBox's PINK input, is used to monitor the current draw of one or more motors within your machinery. FourJaw will read the operation of these motors as UPTIME. When the motors are turned off, it is regarded as DOWNTIME.

Following instructions vary by machine:

**Skip to 4A:** If your machine utilisation can be determined by looking at only a single motor (e.g. a single spindle CNC machine, a single motor stamp/press or a single grinding wheel motor).

**Skip to 4B:** If your machine's productivity is derived from numerous motors, any of which might show productivity. (e.g. a triple spindle CNC machine, a combined sawing/drilling machine, or a multi-head lathe).



## 4A. Single Motor Machine

If your machine productivity is indicated by a single motor, attach the second current clamp to only one of the three-phases that supplies the main motor. Plug this clamp into the PINK input on the MachineLink.



## 4B. Multiple Motor Machine

If your machine productivity is indicated by multiple different motors acting independently, then attach the second current clamp to the joint power unit supplying all of these motors. This tends to be the largest amongst a bank of units.

# INSTALLATION GUIDE

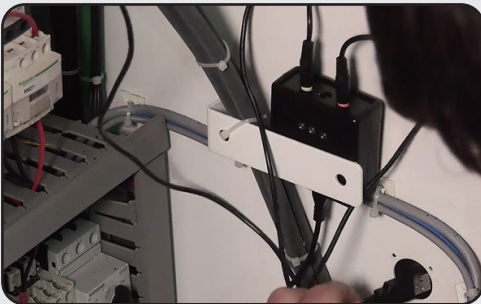


## 5. Plug in current clamps

Take the small black **SensorBox** from your MachineLink kit and plug the current clamps into the coloured jacks.

**IMPORTANT** – you must plug in the clamps as follows:

- PINK – Spindle Motor Current Clamp
- GREEN – Main Supply Current Clamp



## 6. Power SensorBox

Plug the micro **USB cable** into the **SensorBox** and pass the other end of the USB cable to the outside of the electrical cabinet (through a hole, opening or gland). Close the electrical cabinet.



## 7. Fit the MachineLink

Locate a position on the outside of the Machine that the **MachineLink** can be fixed to using the adhesive strips.

**IMPORTANT** – make sure that the USB cable coming from the sensor box inside the electrical cabinet can reach the MachineLink USB ports.

Once you've chosen a suitable location that the USB cable can reach to, fix the **MachineLink** to the outside of your Machine using the adhesive strips.

# QUICK START GUIDE



## 8. Plug in and power on

Plug in the **USB cable** coming from the sensor box into a USB port on the MachineLink.

Next, plug in power to the **MachineLink** from a nearby 3-pin plug socket. You may need to run an extension cable to achieve this.

Next, plug in the Wi-Fi adapter in one of the USB ports at the back of the MachineLink.

Once you're ready, turn on power to the **MachineLink** and check that you can see the power light on the back of the **MachineLink** and a green light flashing on the Wi-Fi Adapter.



## 9. Run the machine spindle

Manually turn on the Machine spindle for at least 1 minute to generate data points.

Username  
YourCompany

Password  
\*\*\*\*\*

☐ Remember Me

Sign In

[Forgot password?](#)

## 10. Login to FourJaw app

Once you've completed the instructions above, please refer back to **step 2** on the single-page instructions. If you've misplaced the instructions, go to your webapp.



**If you have any questions contact Support on:**  
Tel.: +44(0)114 400 0158 • [support@fourjaw.com](mailto:support@fourjaw.com)