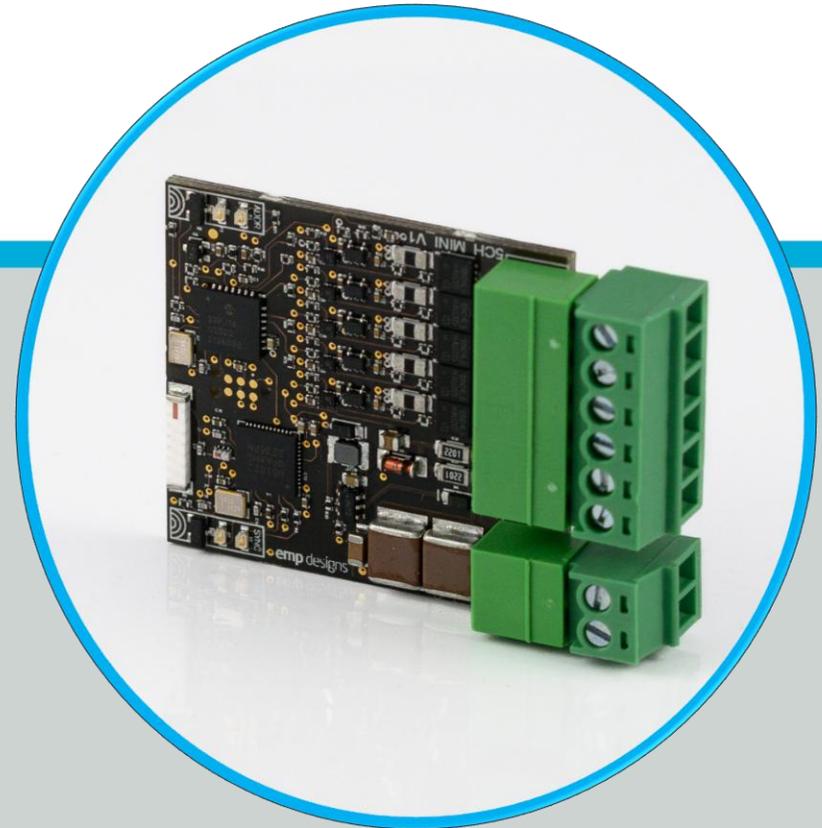
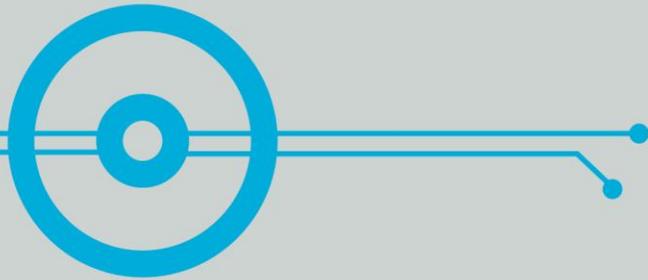
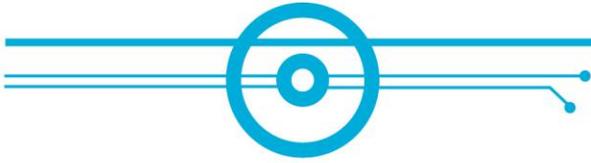


LV5 Femto User Guide



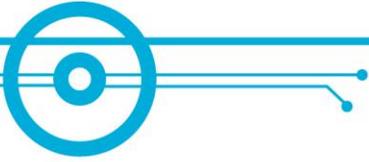
DATE
11/11/2025

PREPARED BY
Kate Stanton



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IMPORTANT SAFETY NOTICE

Read this user guide in full before you attempt to use the LV5 Femto.

On receipt of the LV5 Femto, check no damage has occurred whilst in transit. If you suspect any damage, do not use the controller until you have discussed the issue with EMP Designs Ltd.

If you do not fully understand anything contained in the user guide, contact the manufacturer by email before use (info@empdesigns.co.uk).

Ensure that all electrical connections and interconnections between external LED's are properly made in accordance with the manufacturers' instructions and no short circuits between channels are made.

All external wiring remains the responsibility of the user.

Whilst EMP Designs Ltd. has made every effort to ensure the LV5 Femto is safe to use and meets the client's specification, the client, prior to each application, should always complete on-site testing.

All external connections should only be made while the power is turned off.

Do not attempt to disassemble the controller in any way. Please return the controller to EMP Designs Ltd. if any servicing is required.

Damage may occur if the controller outputs are continually overloaded or short circuited.

Damage may occur if the power in polarity is incorrect.

Ensure a fuse is fitted to the input supply of the controller.

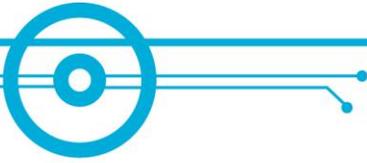
Avoid places subject to extremely high temperatures or humidity.

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LV5 Femto User Guide 28/1/2025

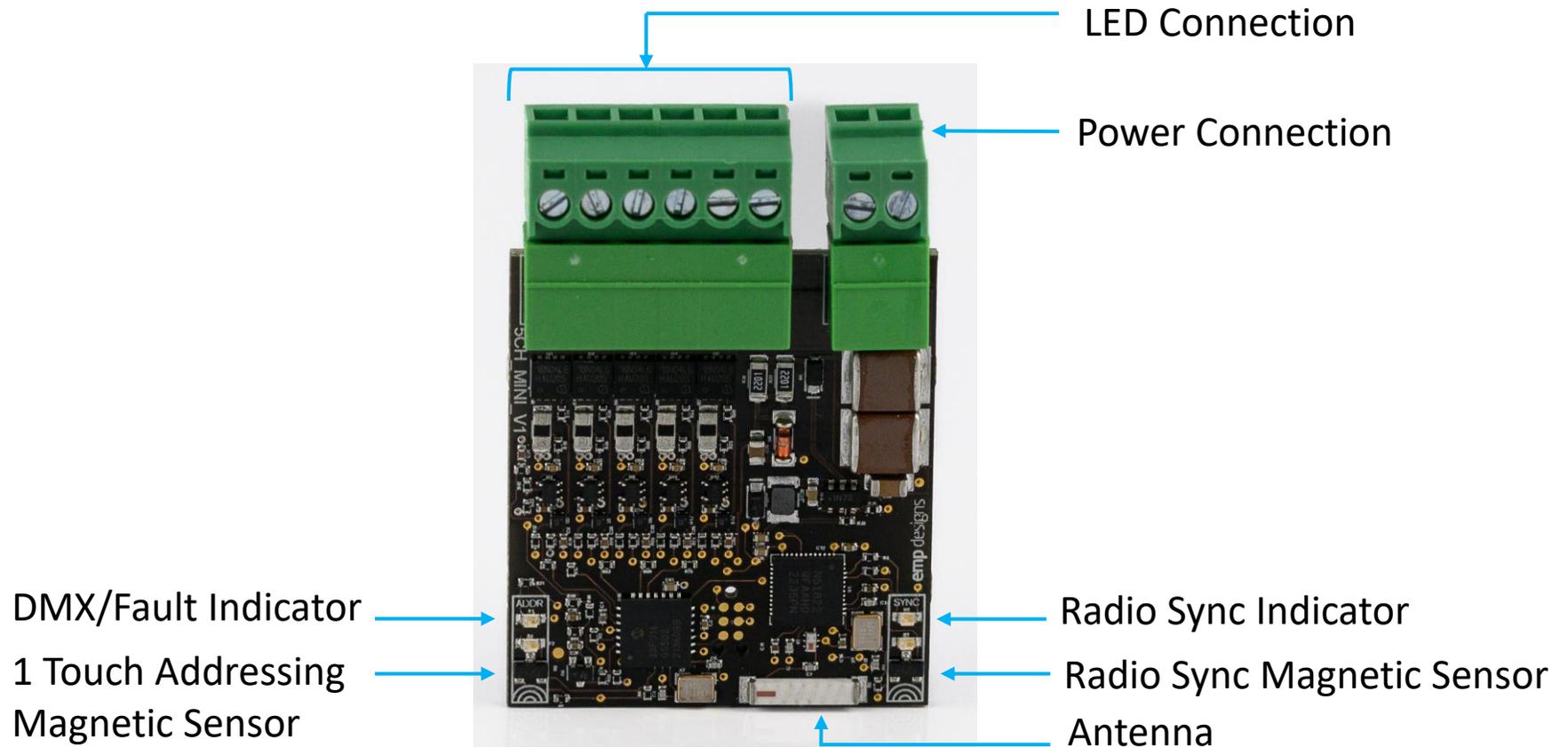


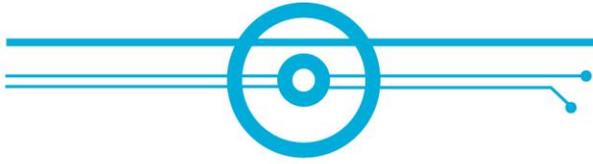
Power Specification

Power Specification	
Output Channels	5
Current per channel max	4A
Voltage Input	12 - 24 Vdc
Voltage Output	12 - 24 Vdc



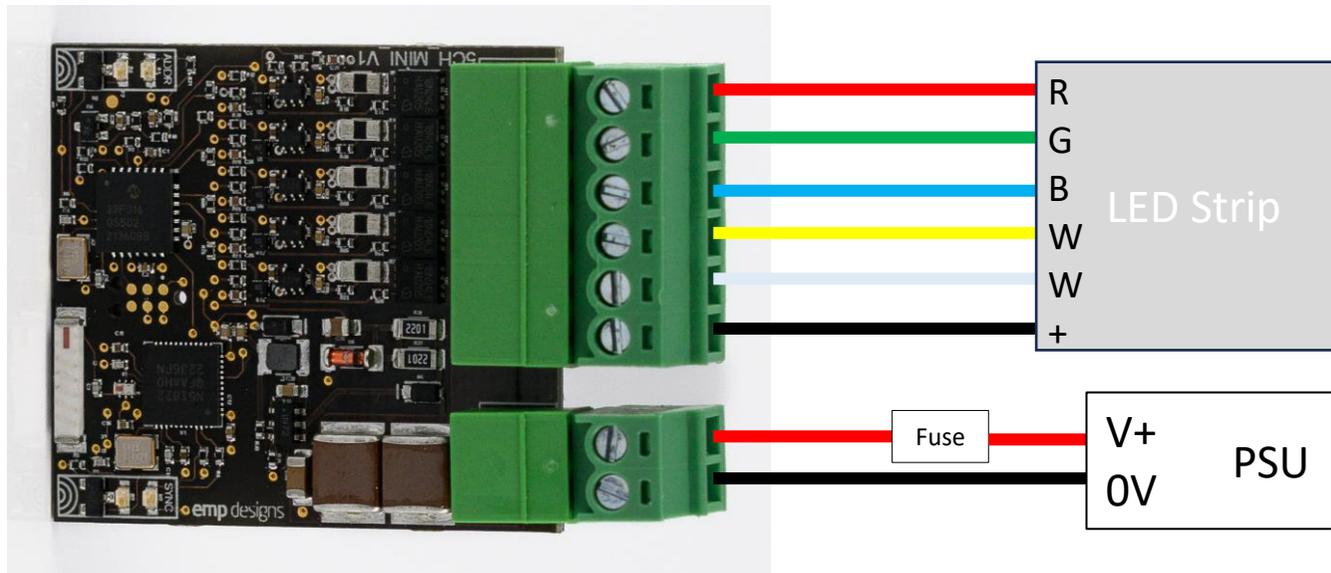
User Controls Guide

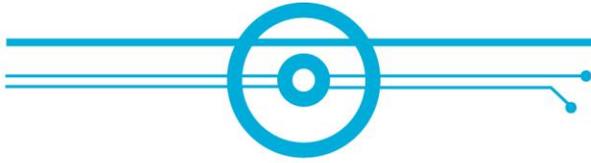




Typical Application Wiring Diagram for RGBWW Strip

(for reference only)

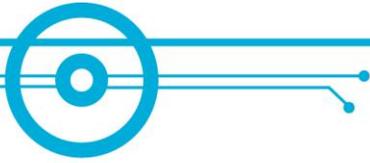




Using the LV5 Femto

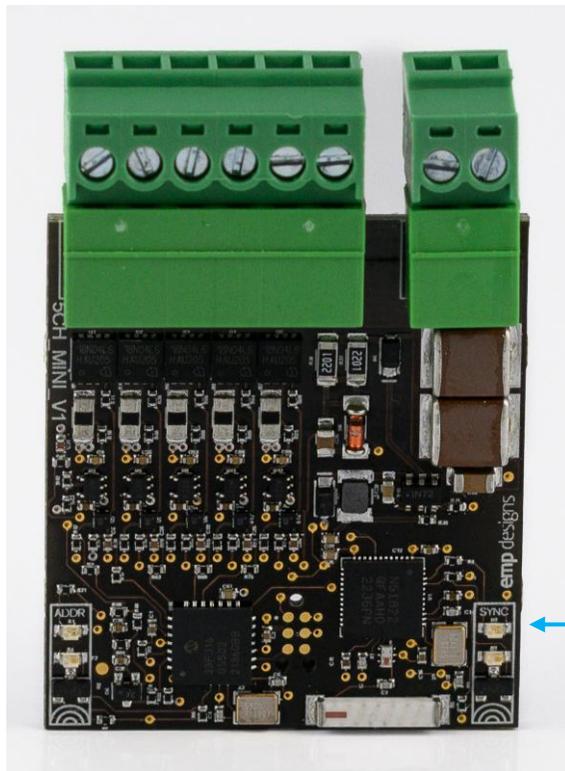
WARNING: The LV5 Femto has been designed without a casing to maintain its compact size. As a result, its components are exposed and may be damaged, or the board may short circuit if it comes into contact with loose wires or metal objects. Handle with care and ensure the device is used in a clean, controlled environment to prevent potential issues

1. Connect the LED strip to the controller in accordance with the wiring diagram on page 6.
2. Switch the power supply on ensuring that the voltage is set in accordance with the voltage of the LED strip.
3. Please note that a new LV5 Femto will default to DMX Address 1. There is only one mode, so the 5 channels are controlled by 5 radio DMX channels starting at the DMX address.



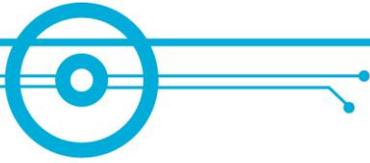
Using the LV5 Femto

4. Press the sync button on your transmitter/radio desk.



Whilst the transmitter is synchronising with the LV5 Femto, the green indicator will flash. Once it has connected the green indicator will remain on.

Green Indicator

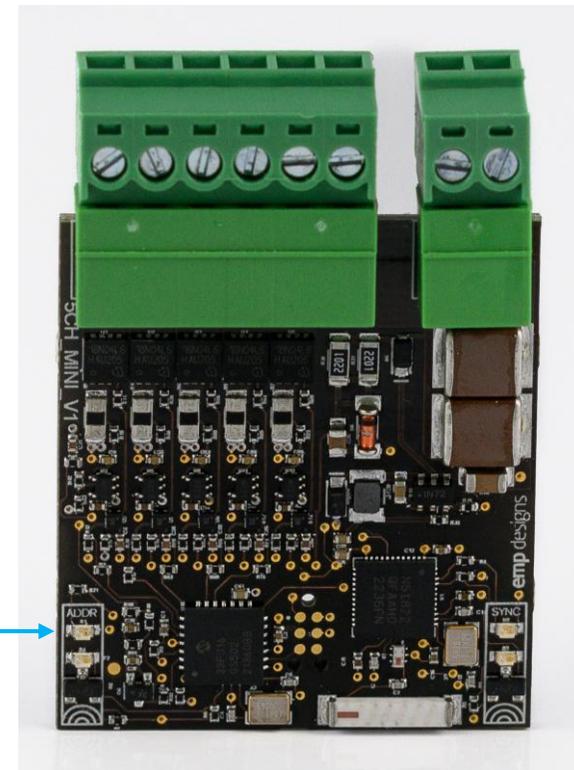


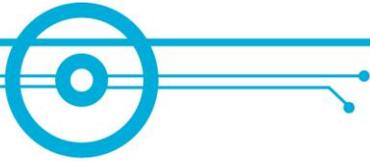
Using the LV5 Femto

5. You will now have the ability to control the LED strip via the transmitter/radio desk.

The DMX indicator will flash when data is being transmitted.

DMX Indicator →





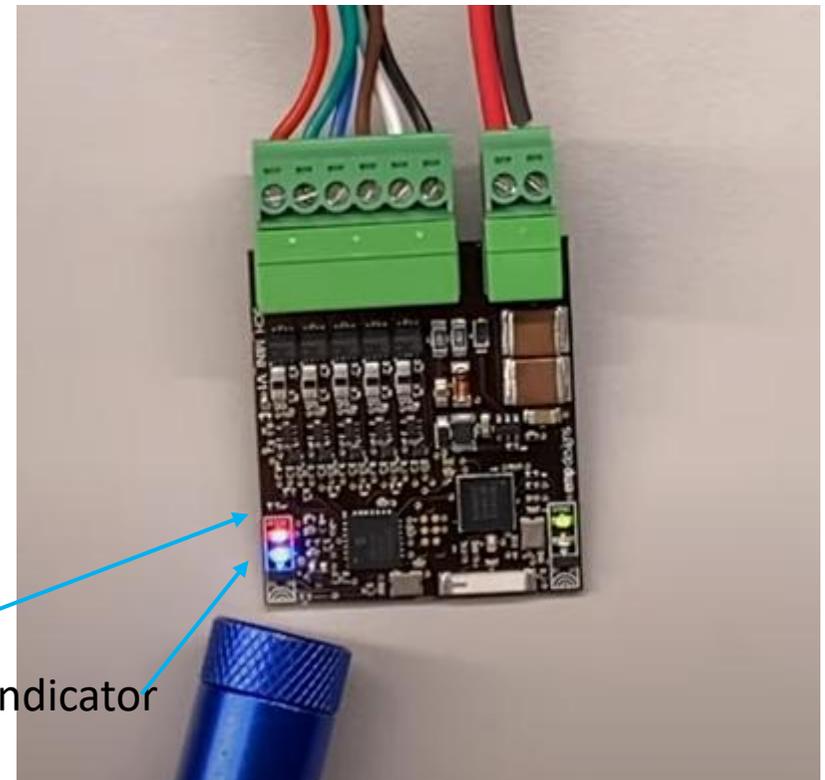
1 Touch addressing

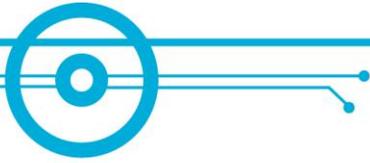
6. Hold a magnet near the Magnetic Sensor. When your magnet is close enough, the magnetic sensor indicator will come on.

Hold the magnet in place until the DMX indicator remains on.

7. Once the DMX indicator remains on, it means the address can be changed. Flash the radio transmitter with the channel that you want to set as the new start address, the controller will shift this channel to be the start address and store the new DMX address in memory.

DMX Indicator
Magnetic Sensor Indicator

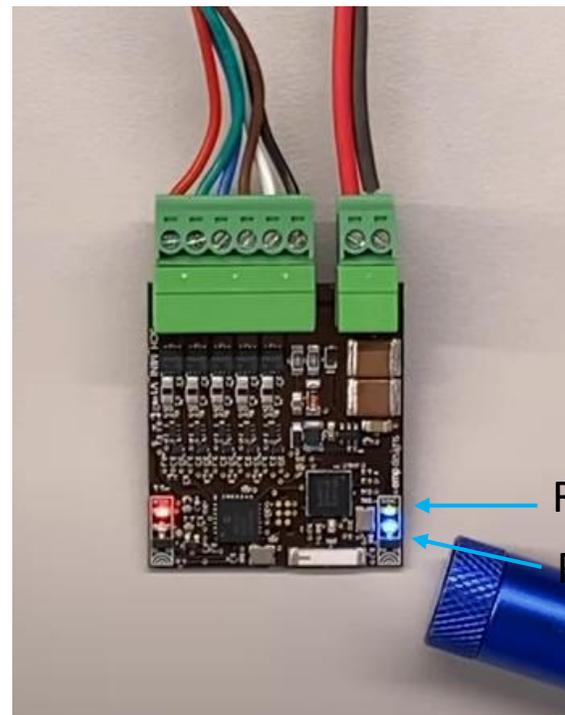




De-synchronising the LV5 Femto from the Transmitter

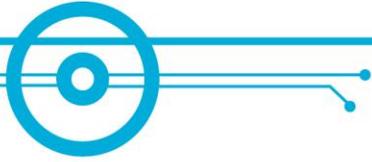
8. Hold the magnet near the radio sync magnetic sensor. The blue indicator will come on when it senses the magnet is close.

Hold the magnet near the sensor until the green indicator turns off.



Radio Sync Indicator

Radio Sync Magnetic Sensor



Link Switch

To link the controller to a new transmitter, hold a magnet over the magnetic sensor for more than 3 seconds or until the status LED is off, then on your transmitter press the sync button. The radio status LED on the controller will start to blink and once the transmitter has finished syncing, the controller will be connected to your transmitter.

Radio Status LED

The radio status LED indicates the following

Receiver



Constant off (0V): Not linked to any transmitter



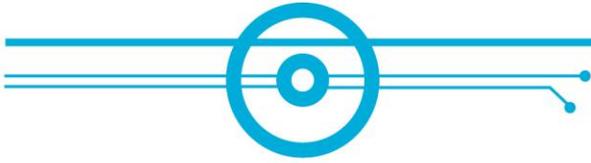
Flashing: off (0V) 100 ms / on (V_{DD}) 100 ms: linked to a transmitter but no active radio



Flashing: off (0V) 900 ms / on (V_{DD}) 100 ms: Active radio link, no DMX present

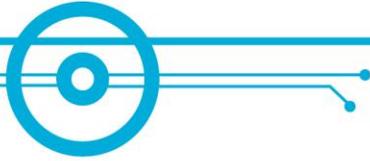


Constant on (V_{DD}): Active radio link, DMX data present



Fault Finding

If the red LED is flashing slowly and no output LEDs are on this indicates a short circuit on the output LEDs. Check the wiring of the output LEDs.

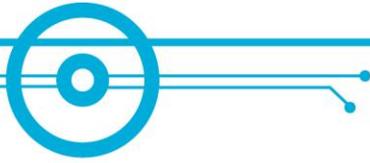


YouTube Support

We have a YouTube channel where there is a video demonstrating how to use the LV5 Femto. The QR below will take you directly to the LV5 Femto Instructional video.

Alternatively, visit our YouTube channel,
<https://www.youtube.com/watch?v=EZ9X60GkaNI>





Get in Touch

If you require further support, don't hesitate to get touch.

Address

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Camberley
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GU15 3DP

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Social Media



<https://www.instagram.com/empdesignsltd/>



<https://www.facebook.com/ukempdesigns>



<https://www.linkedin.com/company/10971529/admin/dashboard/>



<https://www.youtube.com/channel/UCWgFEywgZkPVL0zmKIg6NtA>