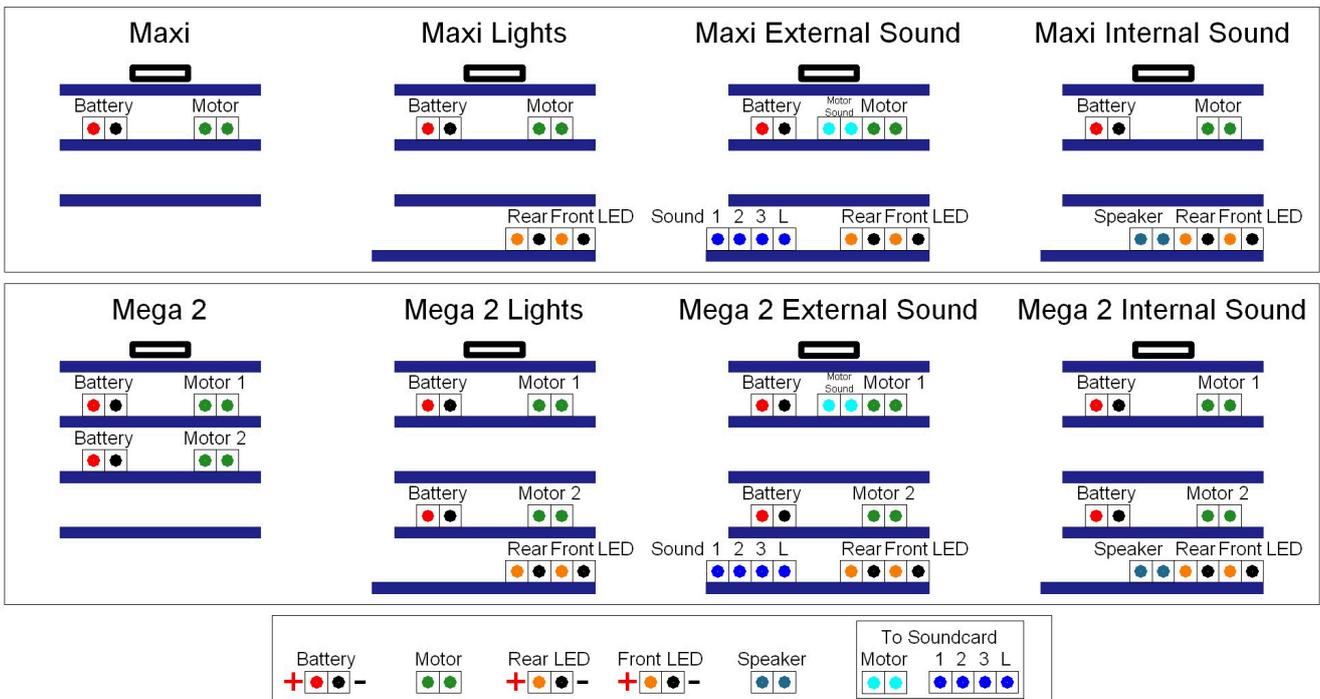


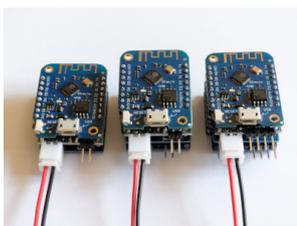
Loco Remote Maxi & Mega setup - www.locoremote.co.uk

The Maxi and Mega are suitable for 6V to 12V motors only. The Mega 2 is a 2 motor output version of the Maxi. They can be powered by any type of battery with a suitable voltage including NiMH, NiCd, Alkaline, Lead Acid and Lipo. **The absolute maximum battery voltage is 15V.** Note that a fully charged nominal 1.2V NiMH battery has an initial output voltage of up to 1.45V so do not use more than 10 AA NiMH batteries or equivalent in series. Nominal 7.4V (2s) or 11.1V (3s) Lipos are suitable. Do not use 14.8V (4s) Lipos as they have a fully charged voltage of 16.8V. The Maxi is able to supply up to 2A current to the motor and lights at the full battery voltage. The Mega 2 has 2 outputs each capable of supplying up to 2A current.

The diagrams below show all the models in the series. Some versions are supplied in two parts. Simply align the pins with the sockets and push these together, ensuring that all the connectors are on the same side. To identify how to connect to your loco, hold the Maxi or Mega with all of the connectors pointing towards you with the metal USB connector on the top. The word USB is written on the board just to its right. The USB connector is used to program the module during manufacture. Please do not connect anything to it or try to power your module this way. It won't work!



Connecting the battery



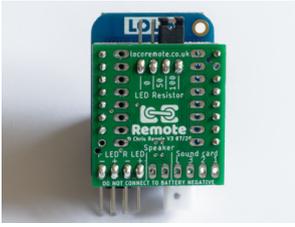
Keyed battery connection cable(s) are included. For both Maxi and Mega plug one into the white rectangular battery connector on the left of the second board down. The Mega has an additional battery connector on a lower board. These must both be connected to the battery via the on/off switch. Make sure the **positive (red) lead** is on the left and the **negative (black) lead** on the right. Connecting the other way round will destroy both the battery and Loco Remote module. It is strongly recommended that you put a 2.5A slow blow fuse in line between the battery and each Loco Remote battery connector (i.e. 2 for the Mega 2).

Connecting the motor(s)



DuPont cable(s) plug into the motor connector(s). Remove the header from the other end if necessary and solder the cable to your motor lugs. **The Mega 2 has 2 motor outputs. Do not try to connect them to the same motor** as it will damage the module and will not work. If the loco goes the "wrong" way in forwards/reverse you can swap the polarity of the cable(s). Each motor output can delivery 2A continuous and 2.5A peak. Much more could damage the Loco Remote. Small to mid sized 12V locos should draw well under this current.

Connecting the LED lights



Two similar cables are included for versions with the LED lights control to connect to the LEDs. The Loco Remote is not able to supply enough current for other types of lights such as filament bulbs. The board can supply up to 150mA at 3.3V, which is enough for up to 8 LEDs on at once. The current limiting resistor can be changed by pulling out and then plugging in the jumper at the back of the board. Set it at 100 ohms for just red LEDs or 50 ohms for just clear white. For a combination or to vary the brightness set it at 0 ohms and use external resistors in series with your LEDs. See the separate downloadable lights guide for more examples.

Connecting an external sound card

You can connect the motor outputs of all Maxis and Megs to sound cards including the **Mtroniks digiSound 5m series** and **MyLocoSound** in their automatic modes to get full variable speed engine noise. For the Mega 2 make sure you only connect one of the motor outputs to the sound card, not both. The sound cards should get their power from the same 6V to 12V battery supplying the Loco Remote Maxi or Mega 2.

The **External Sound Triggers** versions provide a dedicated connector for the motor input to the sound card as well as 4 triggers. Sound 1, 2, 3 and L (as supplied) provide a momentary half second low signal for operating horns, whistles and brake sounds. The Mtroniks only has one input for this (Aux 2), while the MyLocoSound has several (F1, F2, F3, F4).

Sound L can be changed in the www.locoremote.co.uk/v1/settings from momentary to latch which toggles between high and low each time it is pressed. The button background goes grey when low. This setting can be used to turn the engine sound on and off for the **Mtroniks** sound card Aux 1. Keep the default momentary setting for Sound L for **MyLocoSound** F6 input to turn the engine on and off.

Connect directly from the Loco Remote sound triggers to the Mtroniks Aux inputs. For the MyLocoSound please put a 4k7 ohm resistor in series with each of the Fx inputs. Please see the instructions supplied with your sound card for details of how to set it in its various modes. With the MyLocoSound set the Motion Sensitivity to 4 or 5 to ensure a smooth increase and decrease in the engine speed sound. Once connected, to start the sound it may be necessary to press the Faster button once in either automatic or manual sound card mode.

Using the internal sound card

If you have the version with the **Internal Sound Card**, connect a small 8 ohm speaker directly to the 2 pins marked on the bottom of the board. To maximise the bass try to mount the speaker in an enclosure in the loco. A cut down toilet roll tube works well! Tap the 4 sound buttons on the display to operate each sound.

Placement of Loco Remote in the loco

Velcro pads are also included that you may find useful for securing the module in your loco and allowing it to be easily removed. Attach the hooked part to the loco and the soft part to the module. Please make sure no part of the Loco Remote module is at any risk of directly touching anything metallic such as the motor or loco body, inserting something insulating if necessary. **Please do not fully cover the module leaving some of it exposed to the air**, as it can get quite warm in use when running at higher speed. Ideally place it on its side with the boards vertical to help heat dissipation with plenty of space around it. It should never get too hot to touch.

Wi-Fi Setup

To connect to the Loco Remote Wi-Fi access point go to the Wi-Fi settings on your phone and click on the default name **loco_XXXXXXXX** where the x's are a combination of 8 letters and numbers unique to each module. The password is locoremote. Once your phone is connected to the access point, usually signified by a tick, open a web browser and type **www.locoremote.co.uk/v1** in the website address box at the very top to bring up the controller interface. Note typing this into the Google (or similar) search box in middle of the web page will not work. It must be typed into the website address box at the top. If you want to make changes to the loco and Wi-Fi name and password, type **www.locoremote.co.uk/v1/settings** in your web browser while connected to the Loco Remote. For further information please open the Loco Remote Wi-Fi and controller operation guide which can be found on the Guide & Shop page at www.locoremote.co.uk when you are connected to your normal Wi-Fi network and not the Loco Remote.

We are here to help and ensure you really enjoy your Loco Remote. If you have any questions, problems or suggestions for improvements do please contact us either via the web site or by email at locoremote@gmail.com and we will be sure to get back to you promptly.