## Step 1: Tools + Materials

First of all, you should prepare all the materials and tools for the assembly.

Tools:

1. Soldering iron + solder
2. Small flat screwdriver
3. Scissors
4. Hot glue (or similar)
5. Pliers or knife for stripping cable


Lighting kit from Wintini:

1. 12V power supply (24W)
2. LED strip
3. Remote control + receiver
4. DC- socket
5. Shrink tubes
6. Cables
7. Wiring map (scale 1:1)
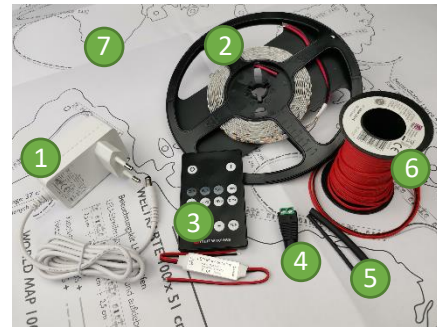
Of course you also need a world map kit from Wintini, this is already optimally designed of lighting.

Step 2: placing LED strips

I assume you have already built the world map kit. If you need help, check out our YouTube channel. Just search for „**DIY Weltkarte aus Europalette | Wintini**".
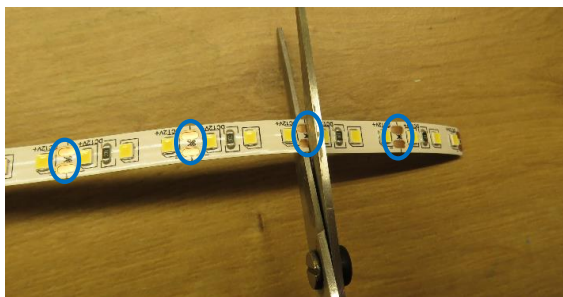

You can cut the LED strips every 2.5cm with scissors.

Make sure that you always cut at the designated points (marked in blue) so that everything remains functional.

On the back of the LED tapes is a double-sided adhesive tape from 3M. To stick, simply peel off the protective film and press on the desired location over the entire surface.
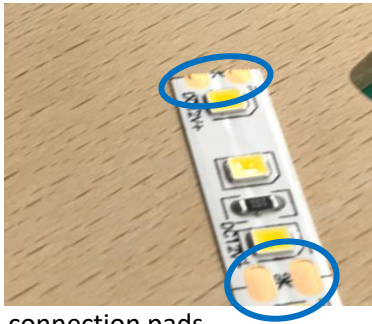
How we suggest to place the LED strips can be seen in the supplied wiring map.
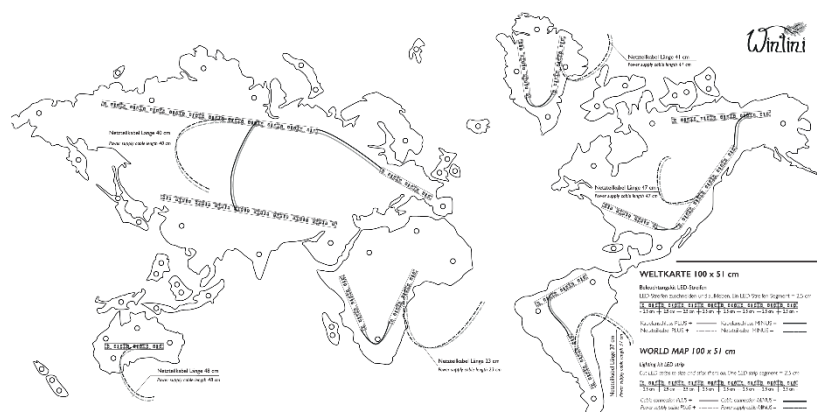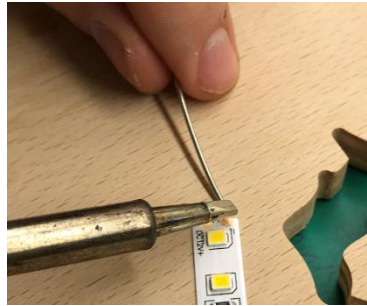
Step 3: Connect LED Strips

This step is probably the trickiest, but still easy to do. So that each segment lights up later, all must now be connected with each other.
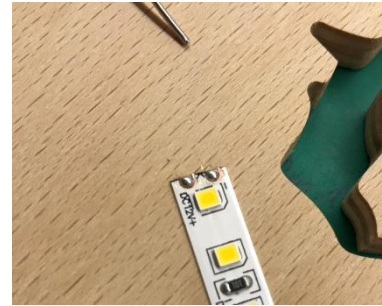
In the wiring map you can already see how we suggest to layout the cables.
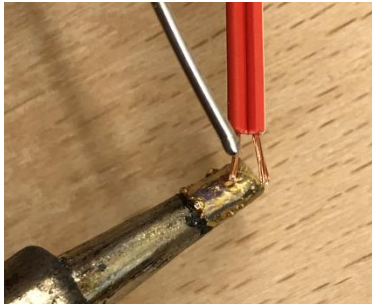
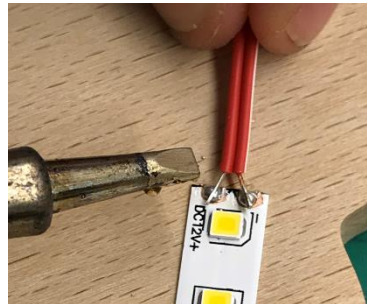

connection pads

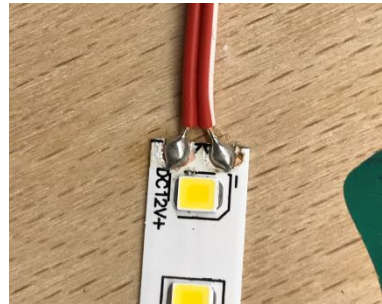tinning of connection pads

tinned connected pad

strip and tin cable

solder cable
care for polarity

finished solder point

Then cut the cable to length and repeat on the second side (other LED strip)

Repeat these steps until all strips are connected according to the wiring map. To connects the continents later to a closed circuit, solder an extra cable to each continent, this is the "power supply cable" in the wiring map.

Step 4: Assemble continents

Since we don't want to see the cables later, the next thing to do is drill a hole under all continents (this is marked also in the drilling template delivered with your "DIY world map kit"). Through this we put the cable and mount the continents again on the base plate.

Step 5: Connect continents

On the backside it should now look something like this:

So that all continents light up later, all cable must now be connected with each other.

To do this, gather all the cable to a point in the middle and cut them so that all the cables overlap!

ATTENTION: You must add an extra cable that has an "open end" for the time being. There are now seven cable that are connected together.
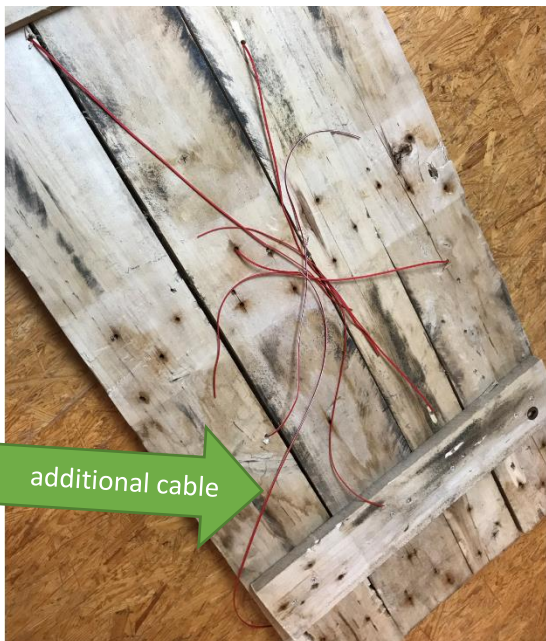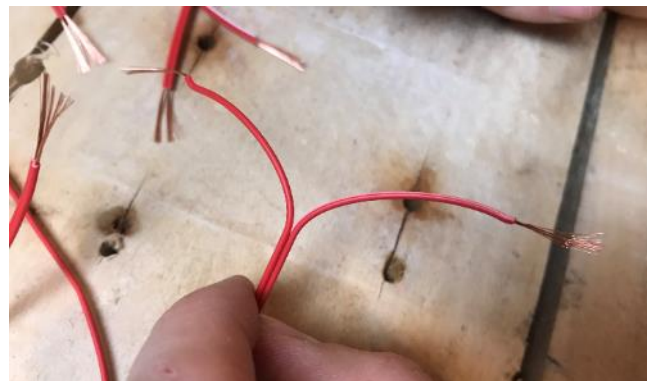

additional cable
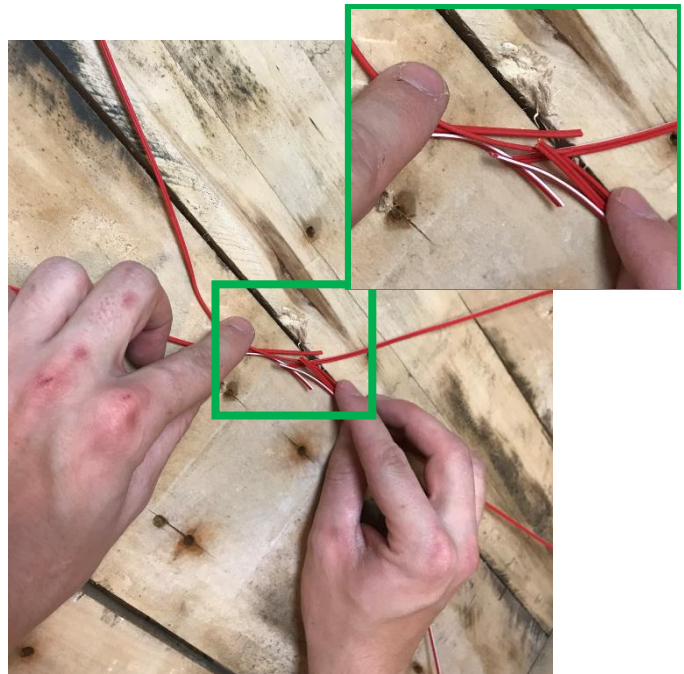
Now you can strip the cables and twist and solder them together.

First, all seven cable are stripped by appox. 15mm and the strands are separated from each other (picture in the right).

Then the strands from one side (Europe, Africa and Australia) are twisted together. The same of the remaining cables. After that immediately slide on the shrink tubbing with the larger diameter.
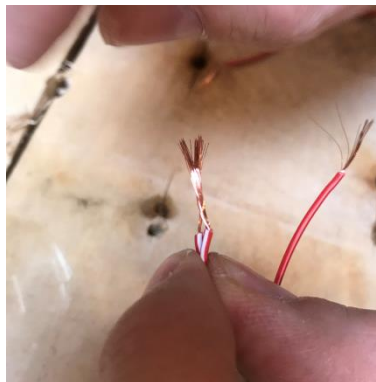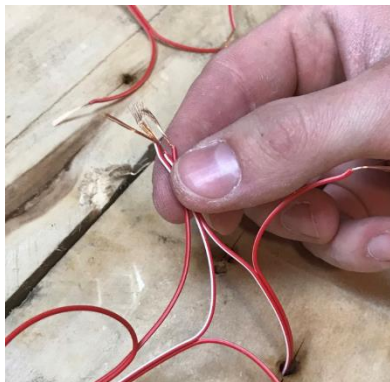
Now the wires can be twisted and soldered together.

After that, the shrink tubes can be heated with a hot air gun or a lighter. Now the cables are reliably connected.

PS: Care for polarity! All cables of the same color belong together.

Step 6: Socket + receiver

After step 5, there should now only be one open cable end. This is now connected to the receiver, which is then connected to the socket for the power supply.

First you glue the socket at the place where the power supply will be plugged in later.

A little hot glue under and on the side of the socket is sufficient for this.
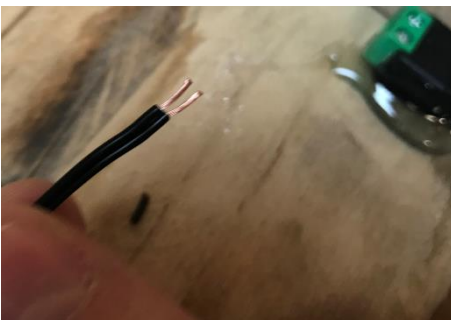

ATTENTION:

Before you install the receiver, connect the open end of the cable directly to the socket to check if the LEDs work. Just plug in the power supply and the LEDs must light up, it this is not the case there is probably a short circuit somewhere.

Only when all LEDs light up properly, the receiver may be installed as the next step.

Otherwise the receiver can be destroyed.

After that connect the "Input" side of the connector with the socket.

Strip cable approx. 7mm

Pay attention to the polarity!

tighten screws

Now you have to connect the last two open cable ends (from the receiver "Output" and the additional cable from step 5).

How this works you already know, here you can now use the shrink tubing with the smaller diameter.

Finished wiring should then look something like this:

Step 7: Enjoy!

Now just plug in the power supply and you can enjoy your work.

Be proud of your work:

Troubleshooting

Problem	Solution
A single continent/ LED strip does not light up	The connection cable is reversed in polarity or has a loose connection
LEDs light up, but do not respond to remote control	Battery empty? -> When operating the remote control, the light at the front of the remote must light up.
	Receiver installed the wrong way. "Input" must be in the direction of the power supply and "Output" in the direction of the LEDs.
	Receiver installed with reverse polarity, "Input" and "Output" (+ and – reversed).
	If there was a short circuit on the output side, the receiver may have been damaged. Please contact us: info@wintini.at
LEDs do not light up	Short circuit on the output side.
	Reversed polarity on one side of the receiver.
You have another problem?	Please contact us: info@wintini.at