AZ-Touch MKR
Rev B
construction manual

<table>
<thead>
<tr>
<th>Rev.</th>
<th>Date</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>2019-03-19</td>
<td>First Release</td>
</tr>
<tr>
<td>B</td>
<td>2021-09-16</td>
<td>Adaption to Version 02-xx</td>
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</tbody>
</table>
Tools:

a regulated soldering iron
(25..40W) with small tip

a wet sponge to clean the tip

thin solder wire

Side cutting pliers
Needle nose pliers

Medium cross slot screwdriver

Optional multimeter
Part list:

<table>
<thead>
<tr>
<th>Part Description</th>
<th>Quantity</th>
<th>Image</th>
</tr>
</thead>
<tbody>
<tr>
<td>2pole terminal block (K2)</td>
<td>2x</td>
<td><img src="image1.png" alt="Image" /></td>
</tr>
<tr>
<td>4pole terminal header (K2)</td>
<td>1x</td>
<td><img src="image2.png" alt="Image" /></td>
</tr>
<tr>
<td>14pole female header (K5)</td>
<td>1x</td>
<td><img src="image3.png" alt="Image" /></td>
</tr>
<tr>
<td>14pole centipede female header</td>
<td>4x</td>
<td><img src="image4.png" alt="Image" /></td>
</tr>
<tr>
<td>15pole centipede female header</td>
<td>2x</td>
<td><img src="image5.png" alt="Image" /></td>
</tr>
<tr>
<td>Pre-assembled pcb</td>
<td>1x</td>
<td><img src="image6.png" alt="Image" /></td>
</tr>
<tr>
<td>Screw M3 4mm</td>
<td>7x</td>
<td><img src="image7.png" alt="Image" /></td>
</tr>
<tr>
<td>Spacer M3 11mm</td>
<td>4x</td>
<td><img src="image8.png" alt="Image" /></td>
</tr>
</tbody>
</table>
1.) *Place and solder the centipede headers*

*It is recommended to shorten the pins on the back flat with a wire cutter before soldering the connectors:*

![Image of the circuit board with 14pole and 15pole headers highlighted]
Now you can solder the centipede headers from the opposite side. Please take care that the headers placed tight as possible to the pcb:

2.) Place and solder the header K5
3.) **Place and solder the header K2**

**Attention!**
K2 is placed on the pcb backside.
4.) Prepare the terminal blocks

Find the 3.5mm terminal blocks, they're brown and come in 2-pin shapes. You'll need to slide two 2-pin blocks together:

Now you can plug the terminal block onto the pin header:
5.) Check the power supply

*It's time to check the function of the power supply before the final assembly of the unit.*

You have to measure a voltage between 4.9 – 5.1V!
6.) **Mounting of Spacers**

7.) **Mounting of Touchscreen**

*Plug the touchscreen into K5 and fix it with 3 M3 screws on the pcb backside.*
8.) Mounting of pcb in the top shell

Position of ventilation slots on this side!
9.) Mounting of Arduino Boards and Shields

Position of Arduino MKR board

Position of optional MKR shield

OR ....

Position of Arduino Nano board

Position of optional MKR shield

Finish