PaPiRus assembly tips and gotchas

In this tutorial we are going to look at some tips and gotchas about the PaPiRus HAT and the PaPiRus Zero ePaper diplays.

This is what's covered in this tutorial:

- Connect the screen to the PaPiRus board
- Connect the GPIO adapter
- Install the pogo pin connector
- Install the push buttons

Connect the screen to the PaPiRus board

These instructions apply to both the PaPiRus HAT and the PaPiRus Zero

To open the connector at the back of the PaPiRus board you need to lift the dark brown clip on CN1 by gently allow it to rotate over its hinges until it is perpendicular to the board. The brown part clips on the beige one so it is normal for it to oppose slight resistance when opening the connector.



The cable terminal is the same for every screen. With the connector open, slide the cable on the beige part of the connector and gently push it so that it reaches underneath the brown clip. Make sure that the cable is inserted evenly so that when the clip is rotate back into the closed position the two dots shown in the picture are parallel with the connector.

This is one of the main causes of the screen not operating correctly so make sure you pay particular care when plugging the screen in CN1.

Once the cable is in the correct position, rotate the brown clip into the closed position. You will notice that it will oppose some resistance but this is absolutely normal.



Connect the GPIO adapter

Note that these instructions only apply to the PaPiRus HAT

If you need to place the PaPiRus HAT board elsewhere in your project than on the Raspberry Pi GPIO header then you can use the <u>GPIO adapter</u> which plugs in CN4. This connector replicates the GPIO on a practical flat cable to provide more flexibility in positioning the screen for your project.

To open the connector slide out the black clip. Push the flat cable in completely then push the black clip back in. The flat cable will have to be plugged in so that the blue part always faces upwards as in the picture.



Install the pogo pin connector

Note that these instructions only apply to the PaPiRus HAT

The pogo pin will either be installed on CN13 or CN15 depending on whether you will be using your PaPiRus on a Raspberry Pi B+, 2B or a Raspberry Pi 3B.

Place the pogo pin in either of those pads from underneath as shown in the picture. By keeping the pogo pin in place perfectly perpendicular on the PCB proceed to solder it from the top side of the board. Use non lead free solder if possible as that's generally easier to work with. If you have a temperature adjustable controlled solder station you should be setting it to about 300° Celsius.



Install the push buttons

Note that these instructions only apply to the PaPiRus HAT

Place the buttons on the top side of the PCB so that the legs completely go through and the bottom of the switch is touching the PCB.

Turn the board around and solder the feet with sufficient lead. Use non lead free solder if possible as that's generally easier to work with. If you have a temperature adjustable controlled solder station you should be setting it to about 300° Celsius.

