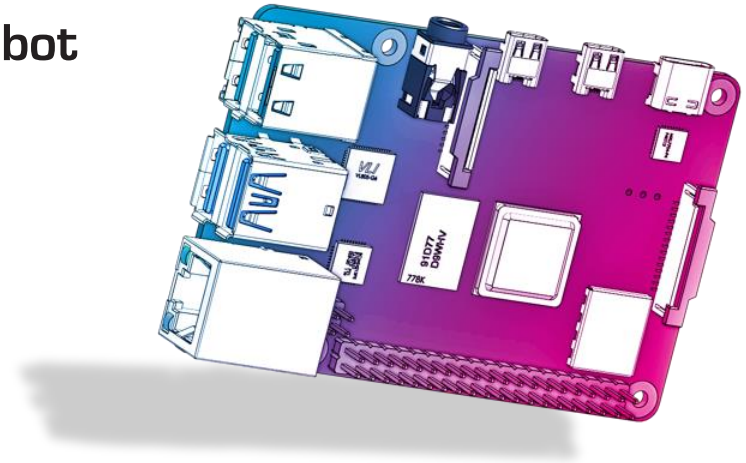
PRINT
BUILD
DEVELOP
YOUR OWN ROBOT

How to build your robot

www.pib.rocks/build



instructions for:

Start Up

pib#4s

Build it better: our suggestion for assembling pib

We recommend **tools** for each step. These are a suggestion, you can of course also use other tools.

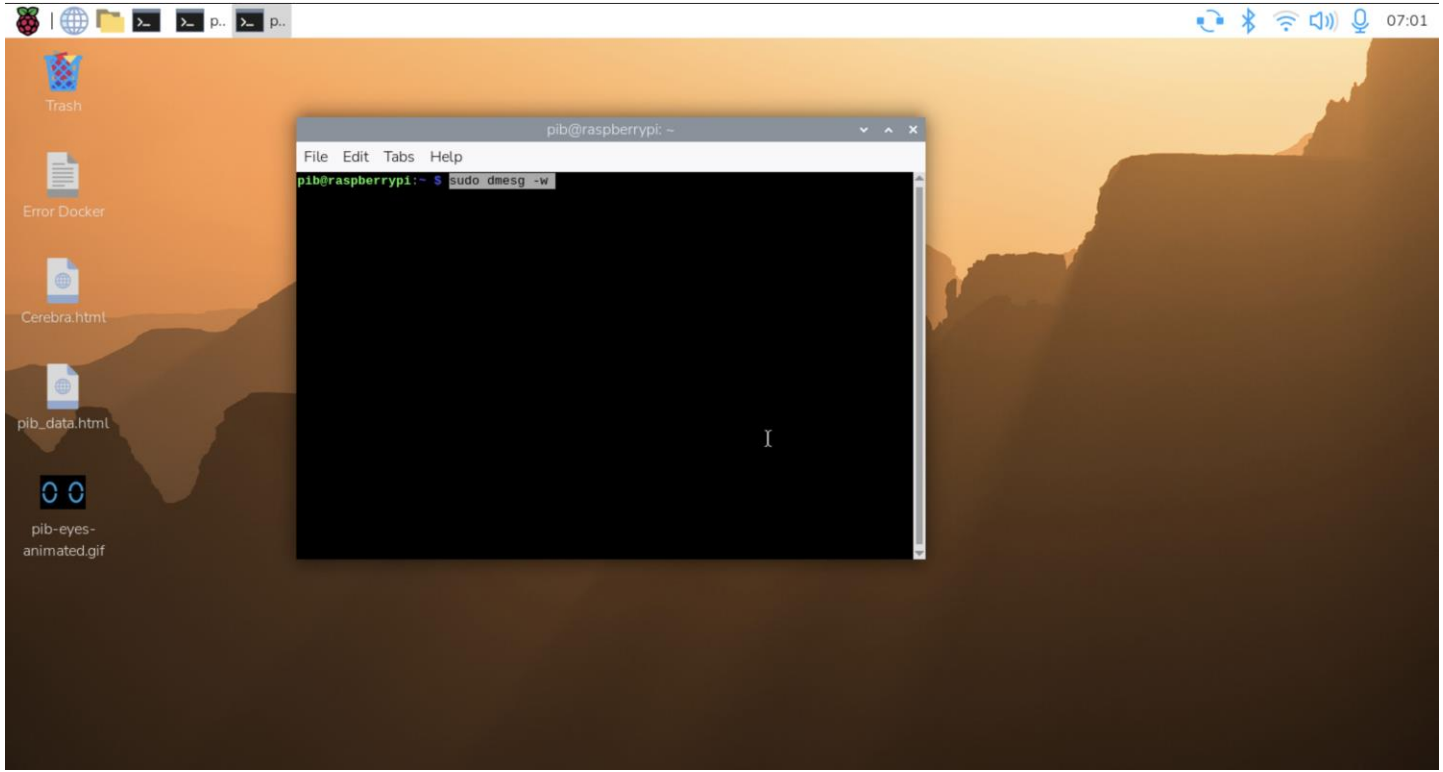
1-5

We have categorized each step according to its **difficulty** - from **1-5** (1 being the easiest, 5 the hardest)

We also show you which **non-printable parts** you need for each step

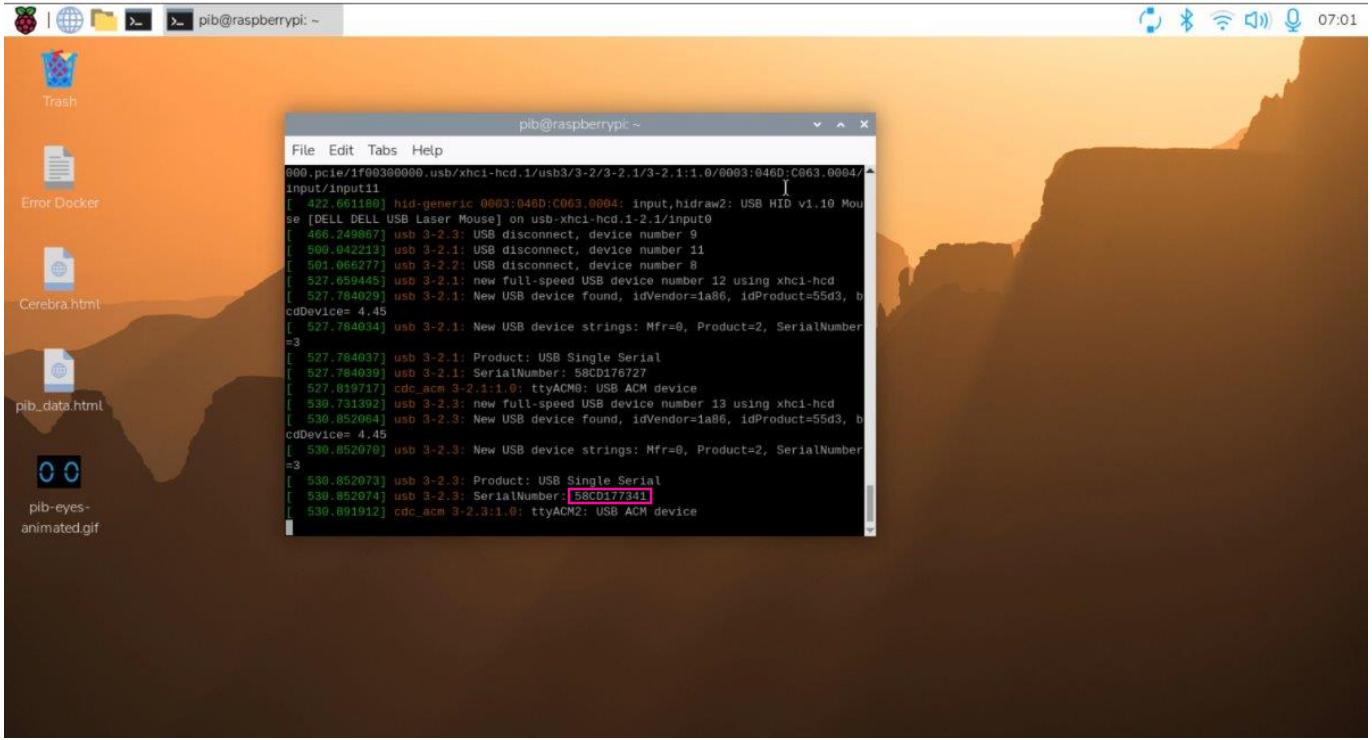
Step 1

Open a terminal window and type in this command "sudo dmesg –w"



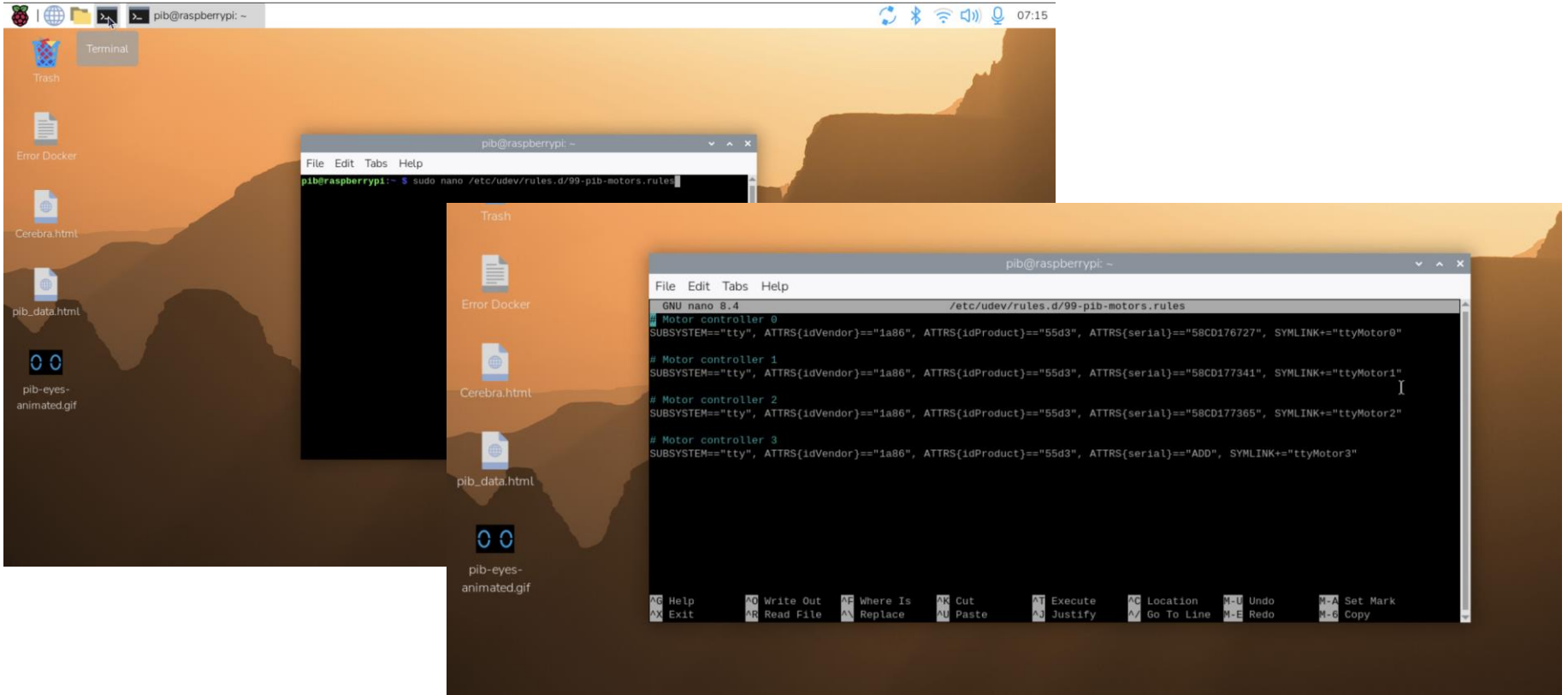
Step 2

Plug in E17 bricklets with their numbered order. 0 first then 1 then 2 then 3. And monitor the serial number showed on the terminal. If you insert the bricklets with the correct order then 1 should correspond to ttyACM0, 2 to ttyACM1, 3 to ttyACM2 and 4 to ttyACM3. Write down serial number for each one on a piece of paper case sensitive



Step 3

Create custom rules by typing this command "sudo nano /etc/udev/rules.d/99-pib-motors.rules" in terminal and add the shown lines exactly but with the serial numbers discovered in previous step. ttyMotor0 should corrospond to bricklet 1, ttyMotor1 to 2 and so on

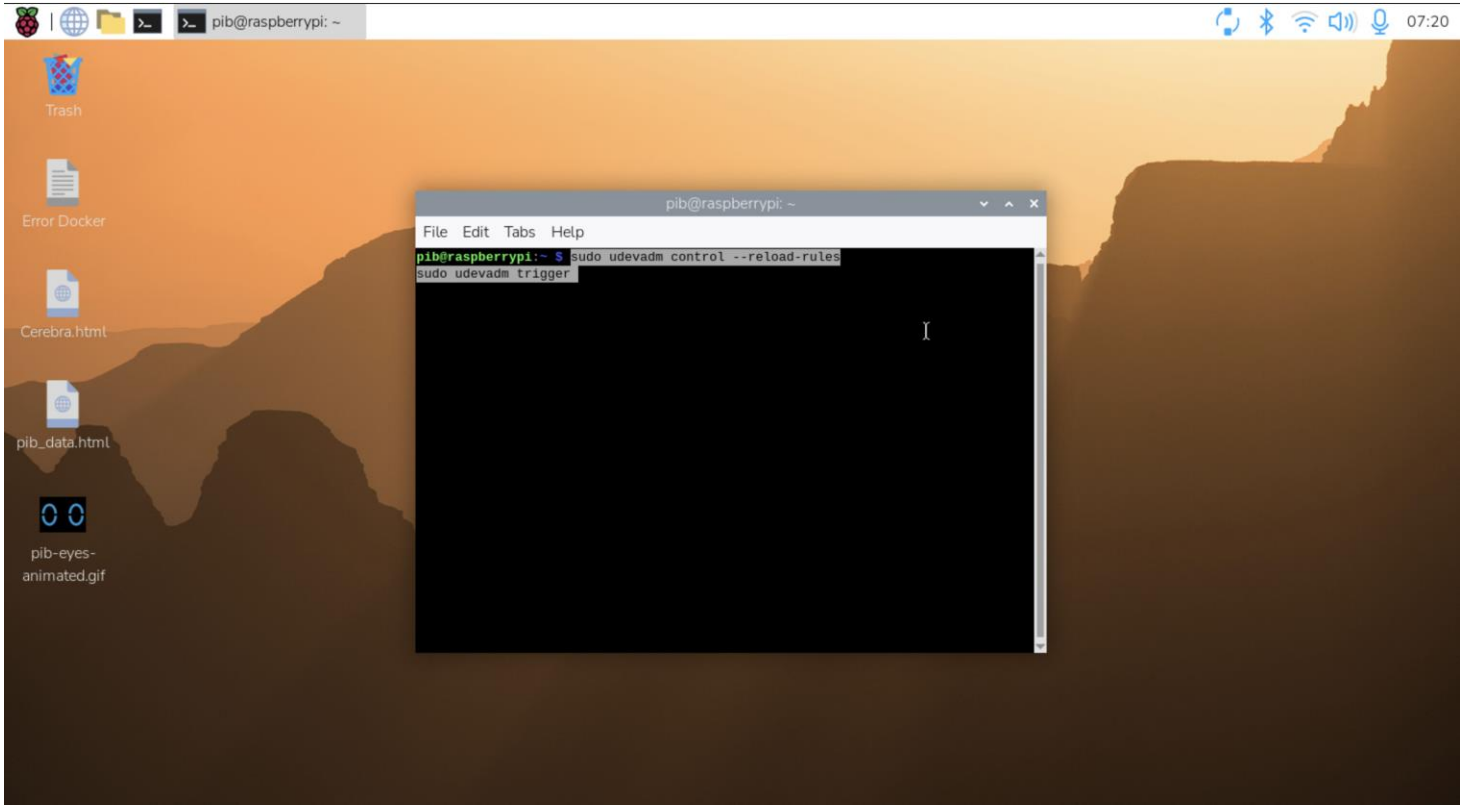


Step 4

Type the following commands in a terminal, if it doesn't work instantously then unplug usbs, replug them and restart pib.

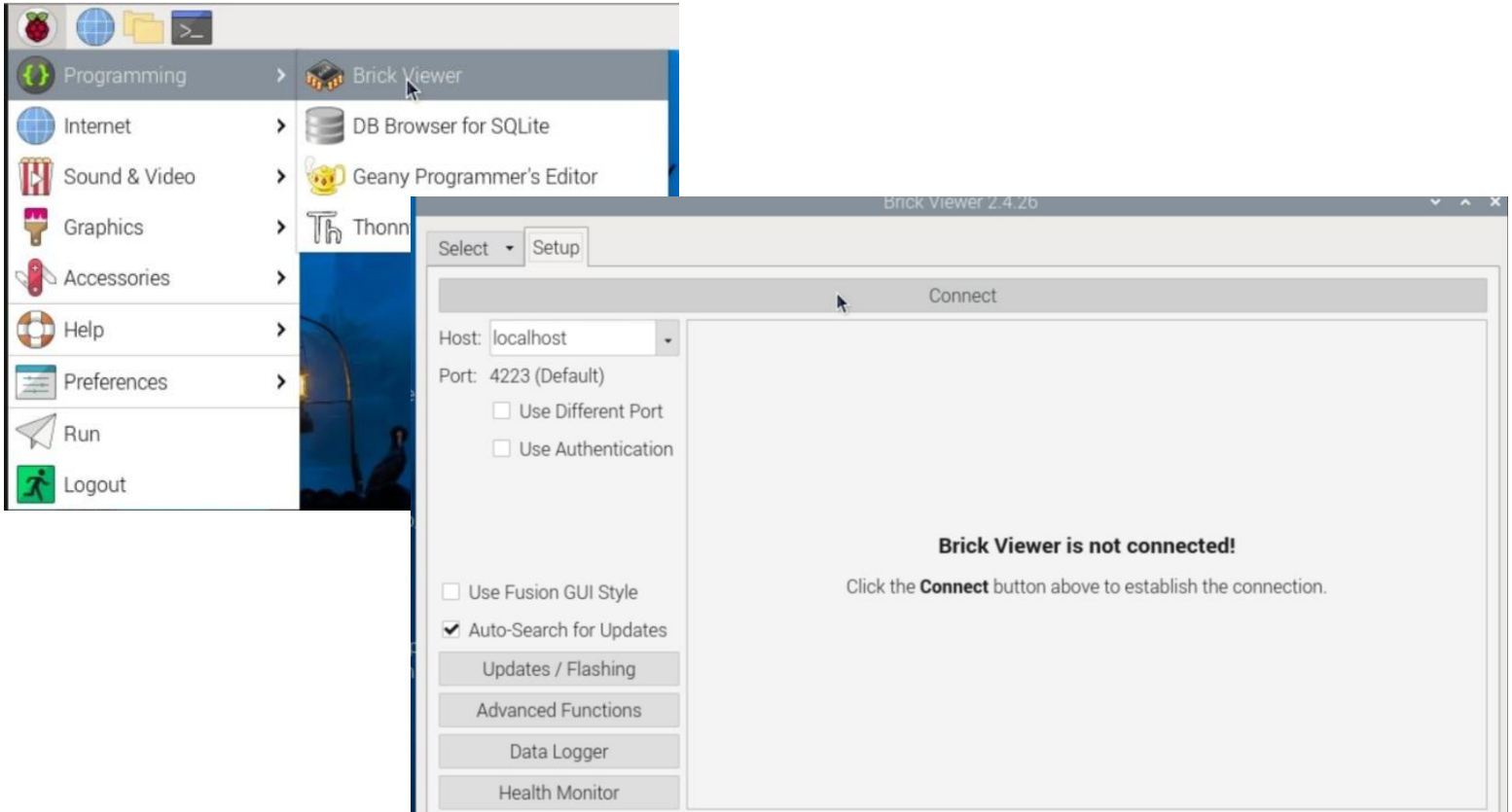
sudo udevadm control --reload-rules

sudo udevadm trigger



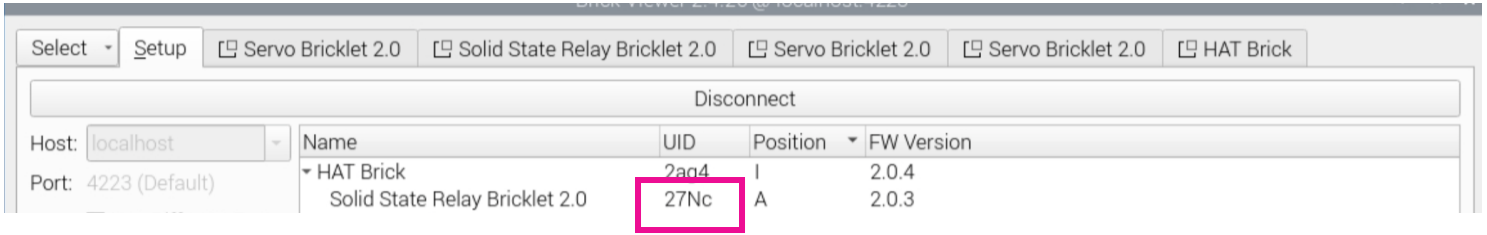
Step 5

Open brickviewer and click on connect



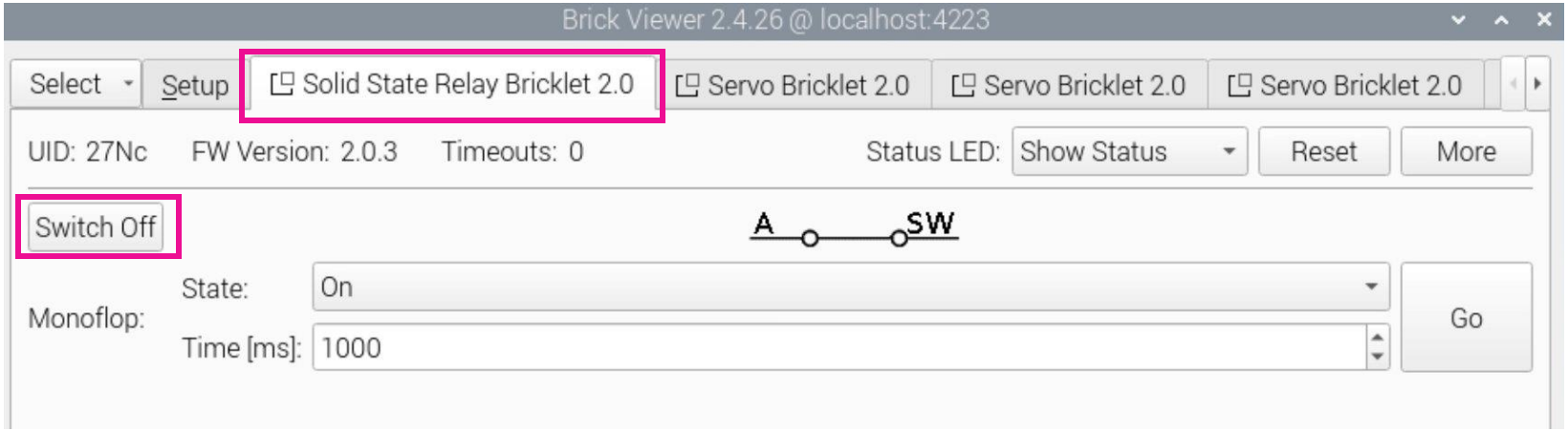
Step 6

Write the UID beside solid state relayin a piece of paper (case senstive)



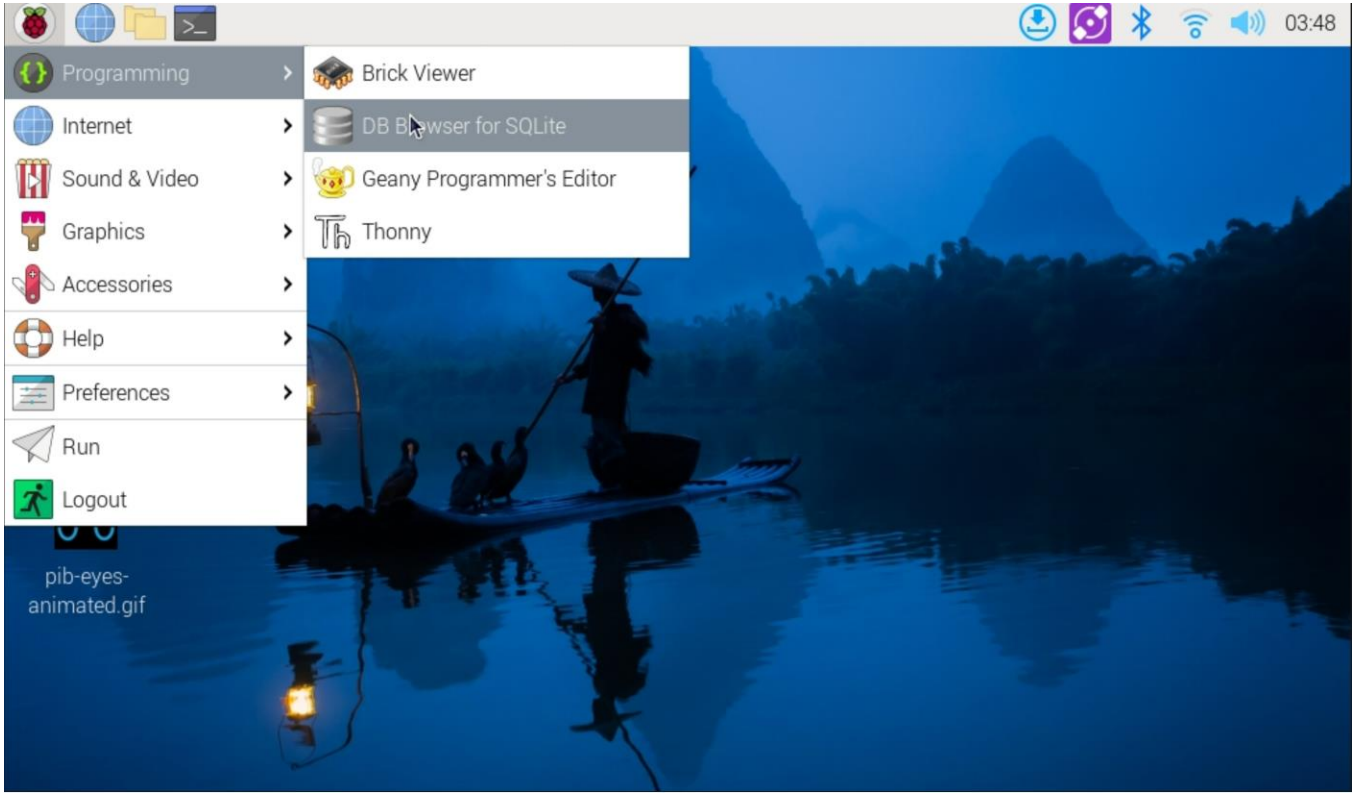
Note

To turn on and off the power for motors without Cerebra click on the shown button in solid state relay bricklet tab



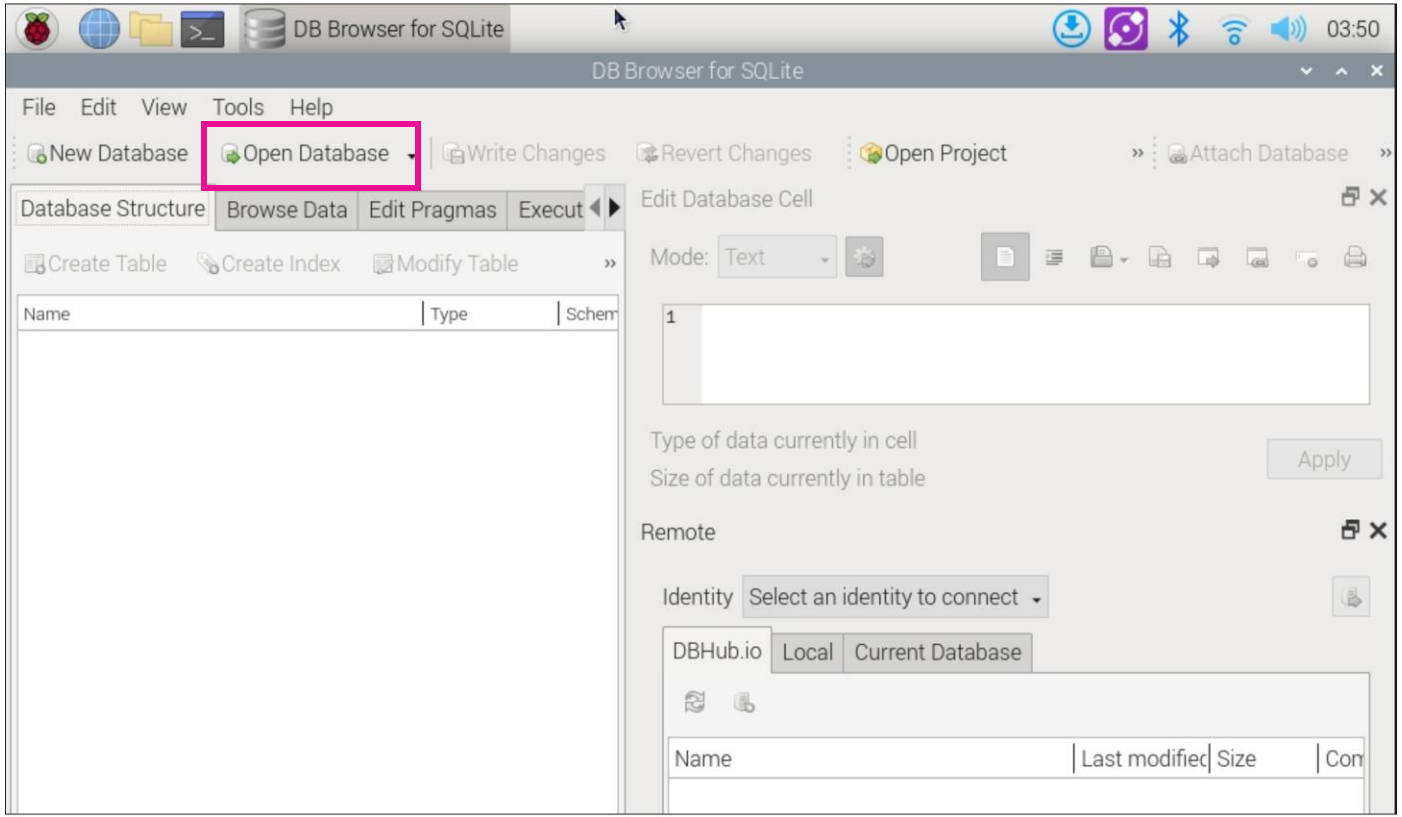
Step 7

Click on the top left Raspberry icon, then point at programming and select DB browser for SQLite



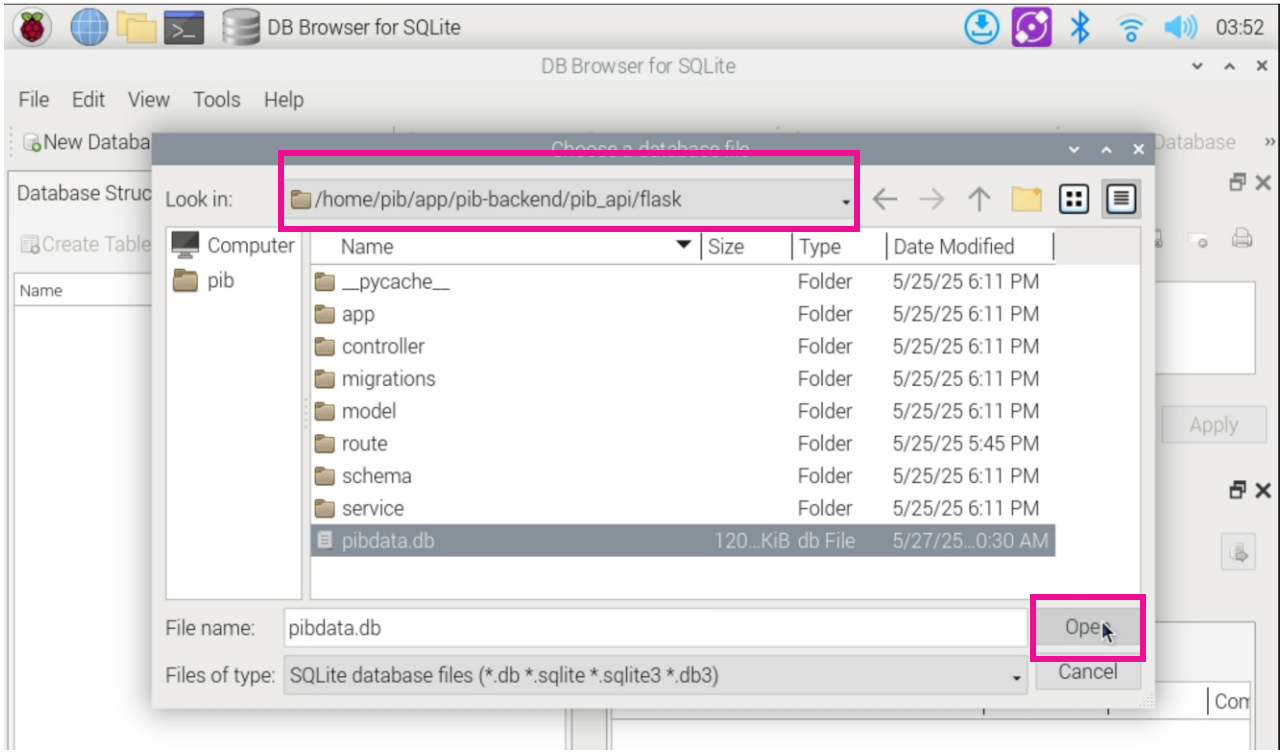
Step 8

Click on open database



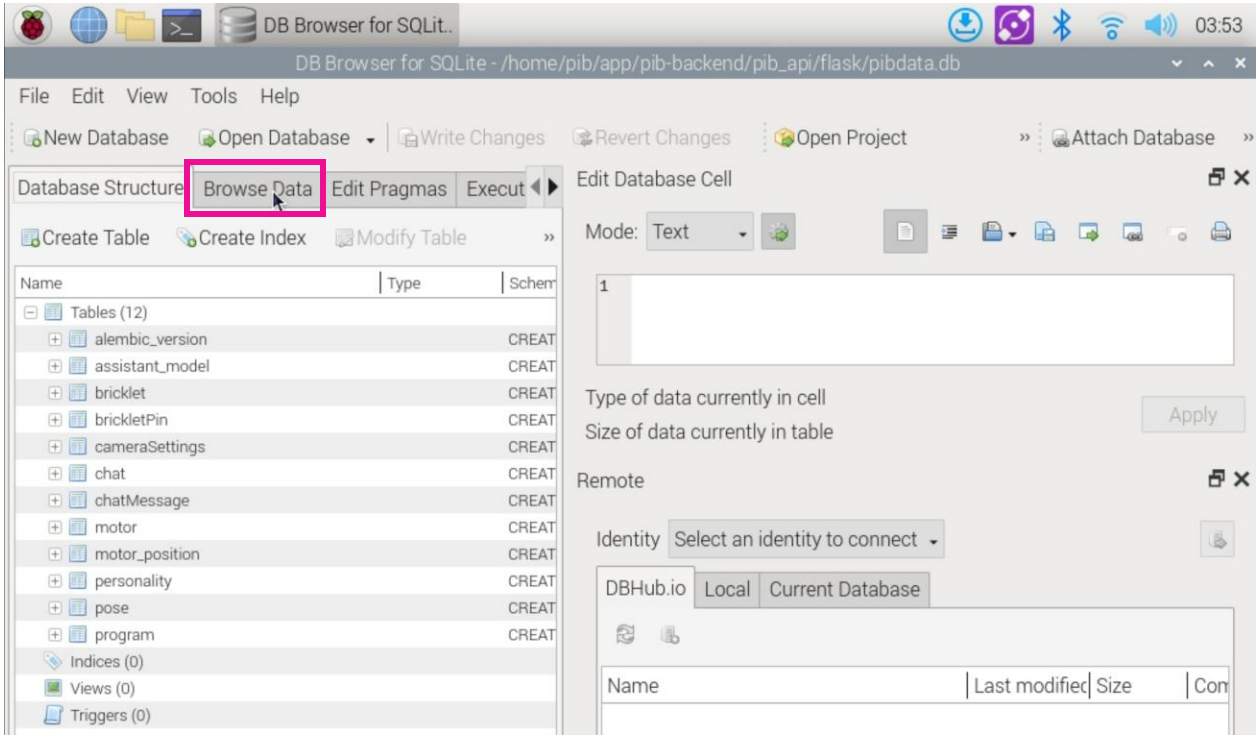
Step 9

Navigate to app/pib-backend/pib_api/flask and select pib_data.db



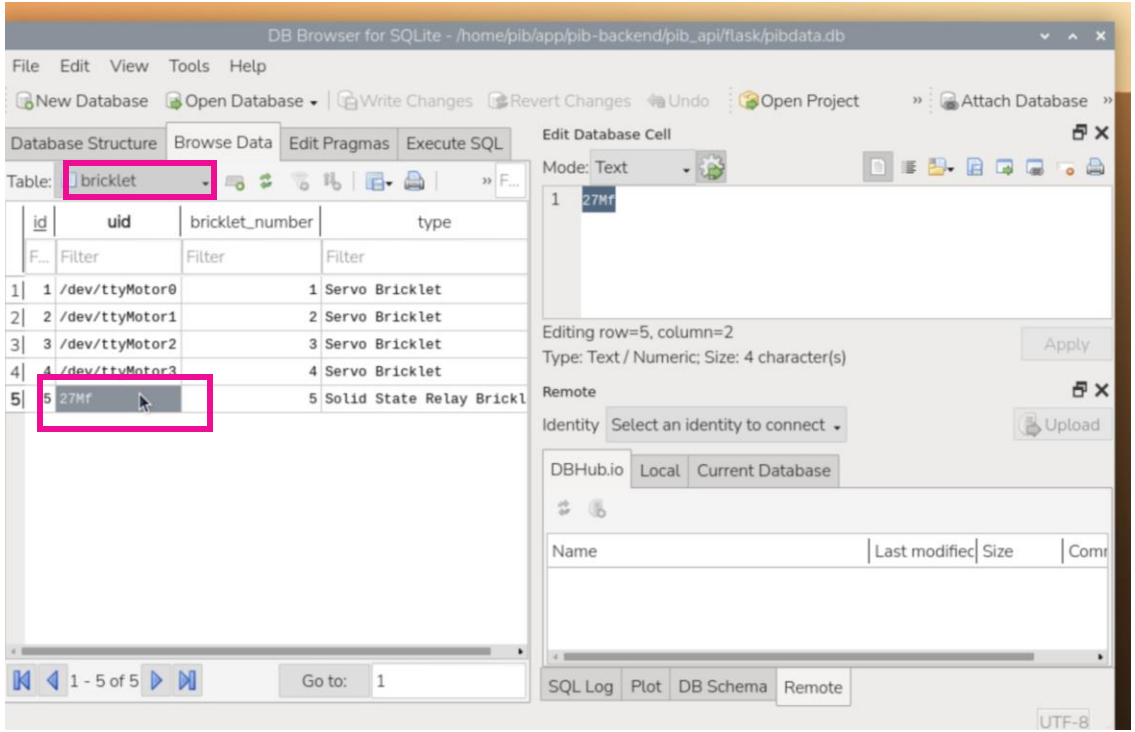
Step 10

Click on browse data



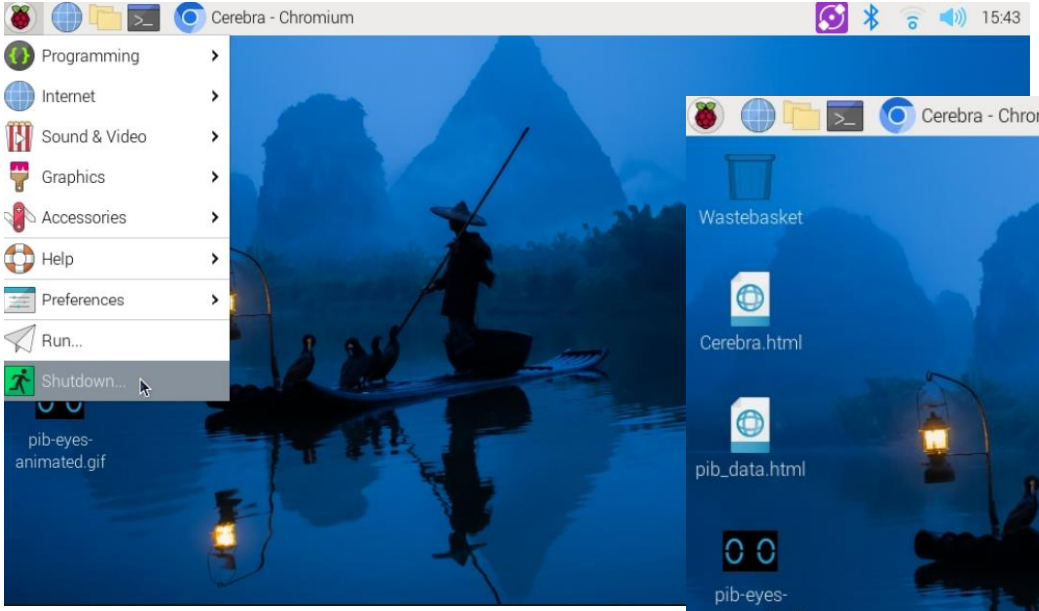
Step 11

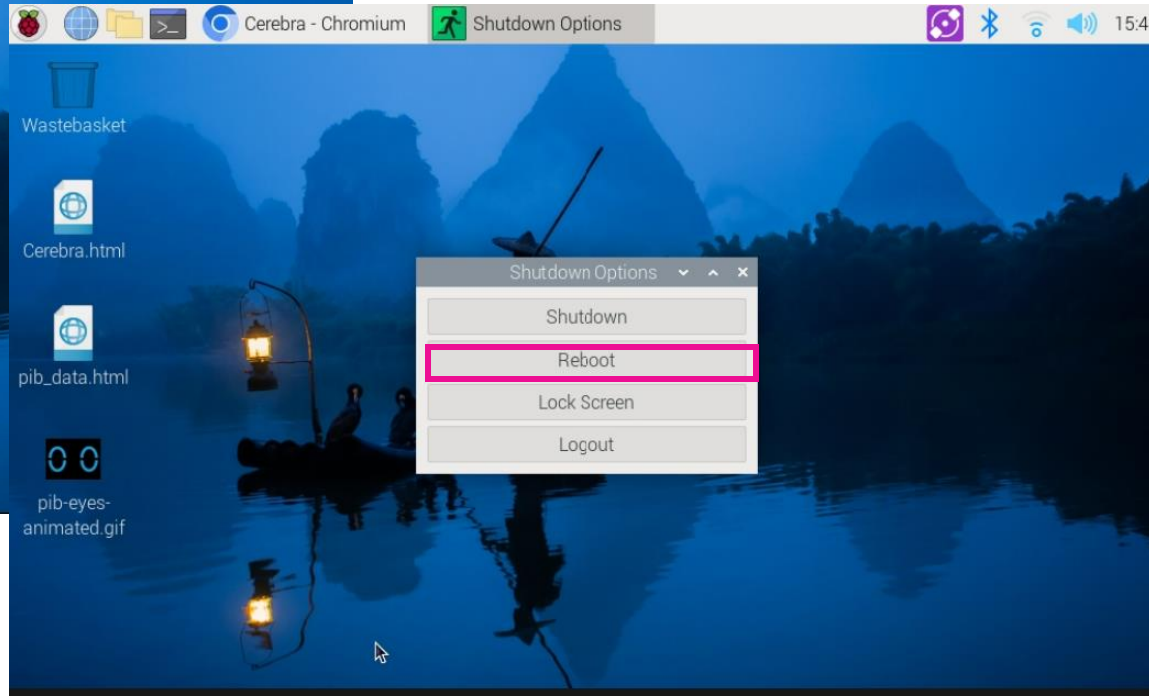
Go to bricklet and change uid for relay to the one discovered in brickviewer



Step 12

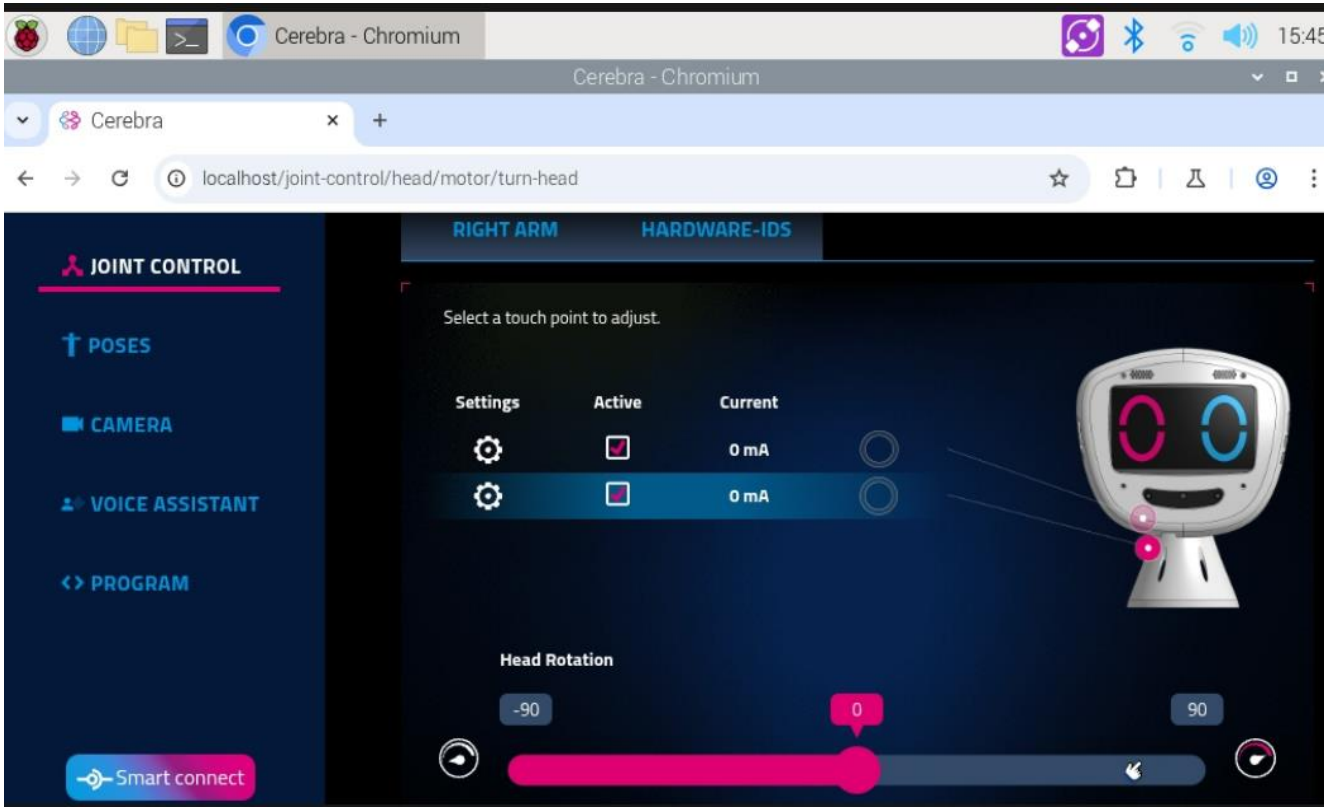
Restart pib





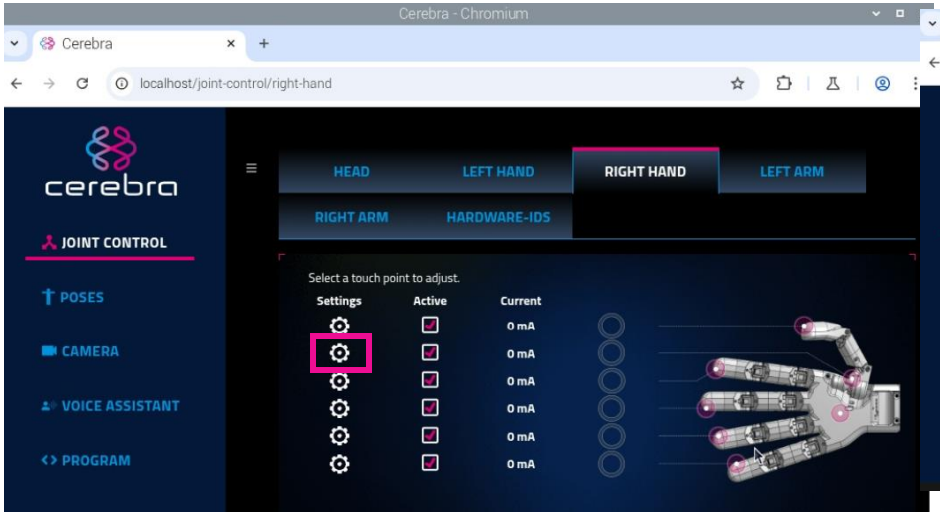
Feature 1

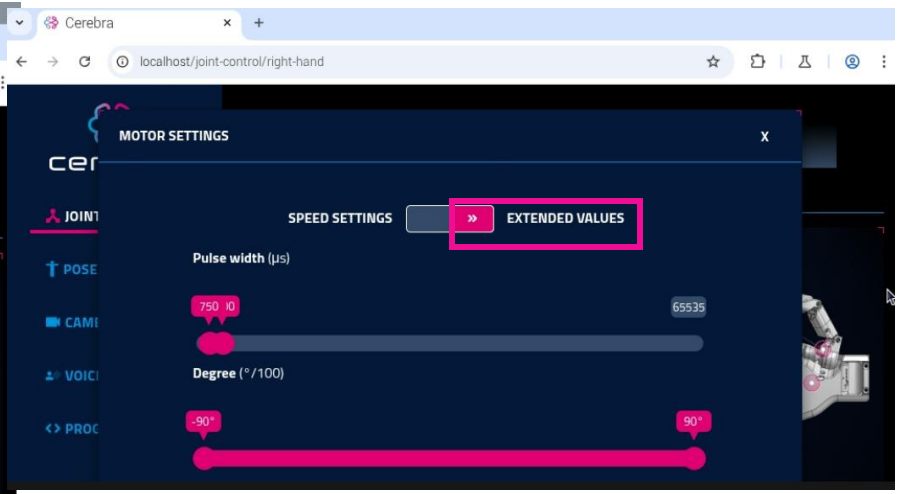
Click on joint control and select any joint you want to move and just move the slider

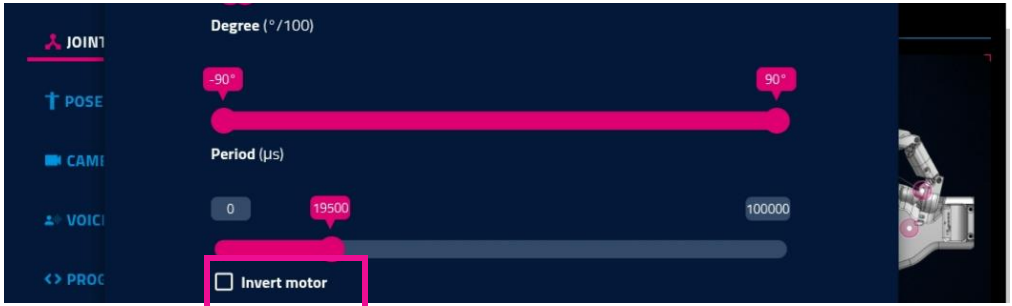


Note

If a finger moves in the opposite direction to others, click on the finger, click on settings icon, click on extended values and click invert



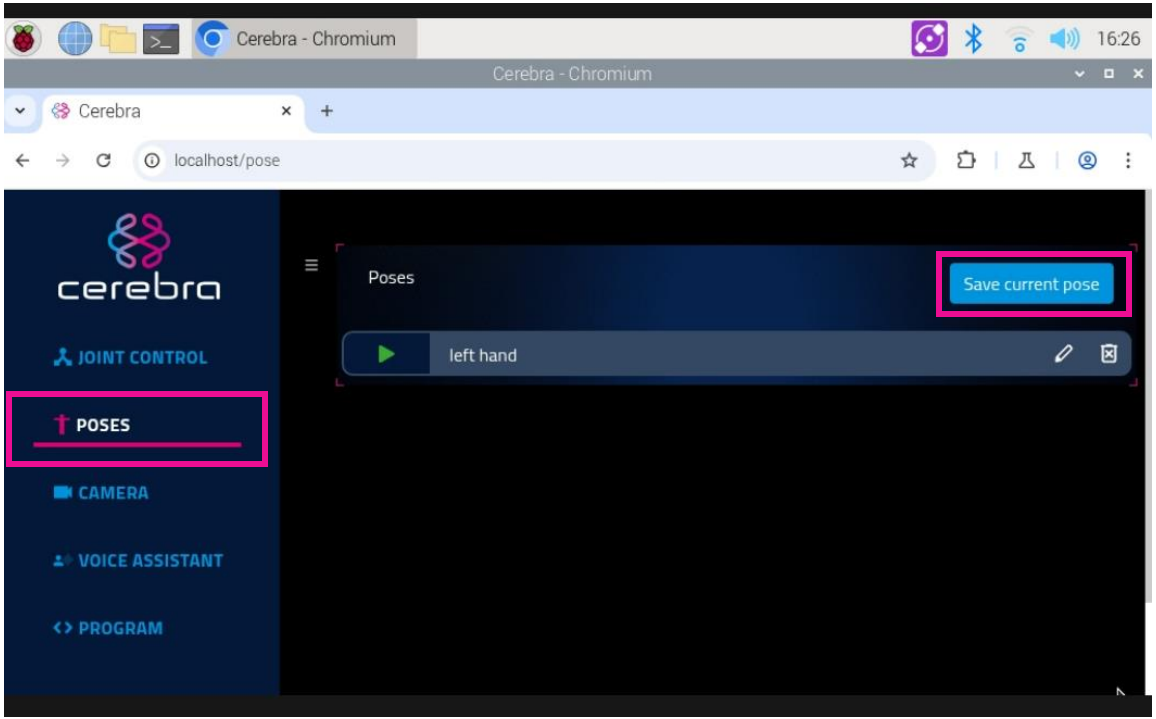




Feature 2

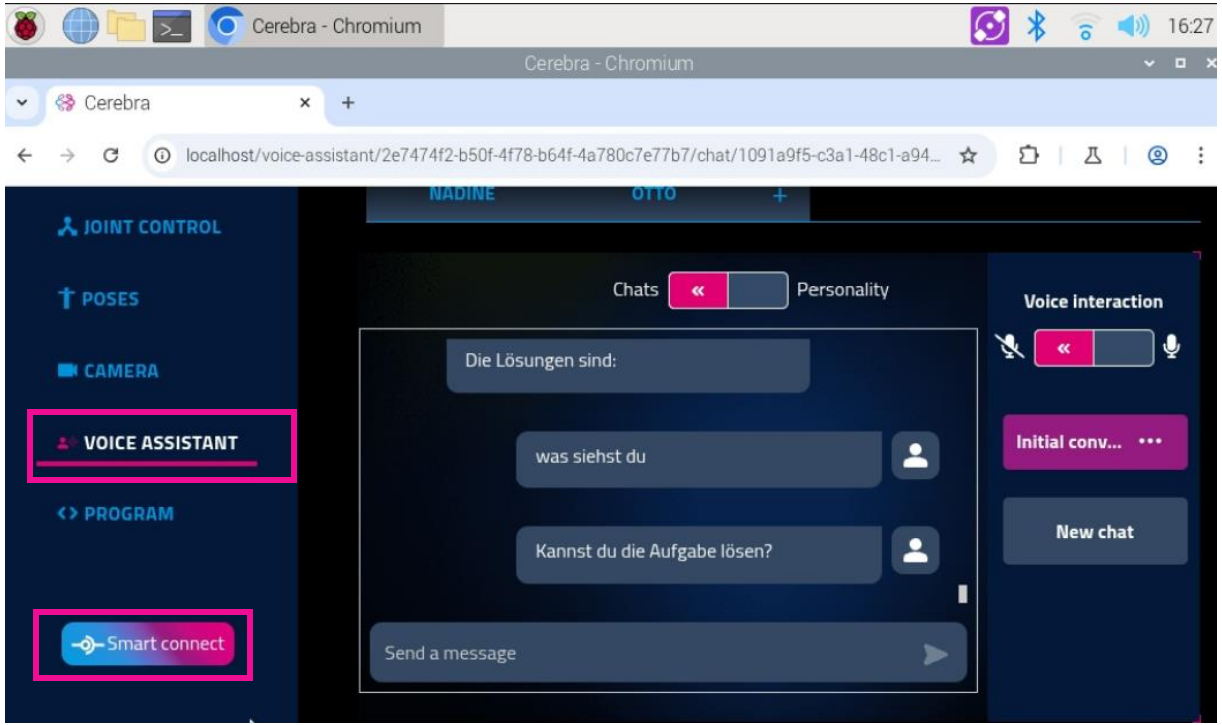
1

Move the joints with joint control to a configuration you want to save, then navigat to poses and create new pose. Now every time you click on this pose, pib will go to the saved configuration



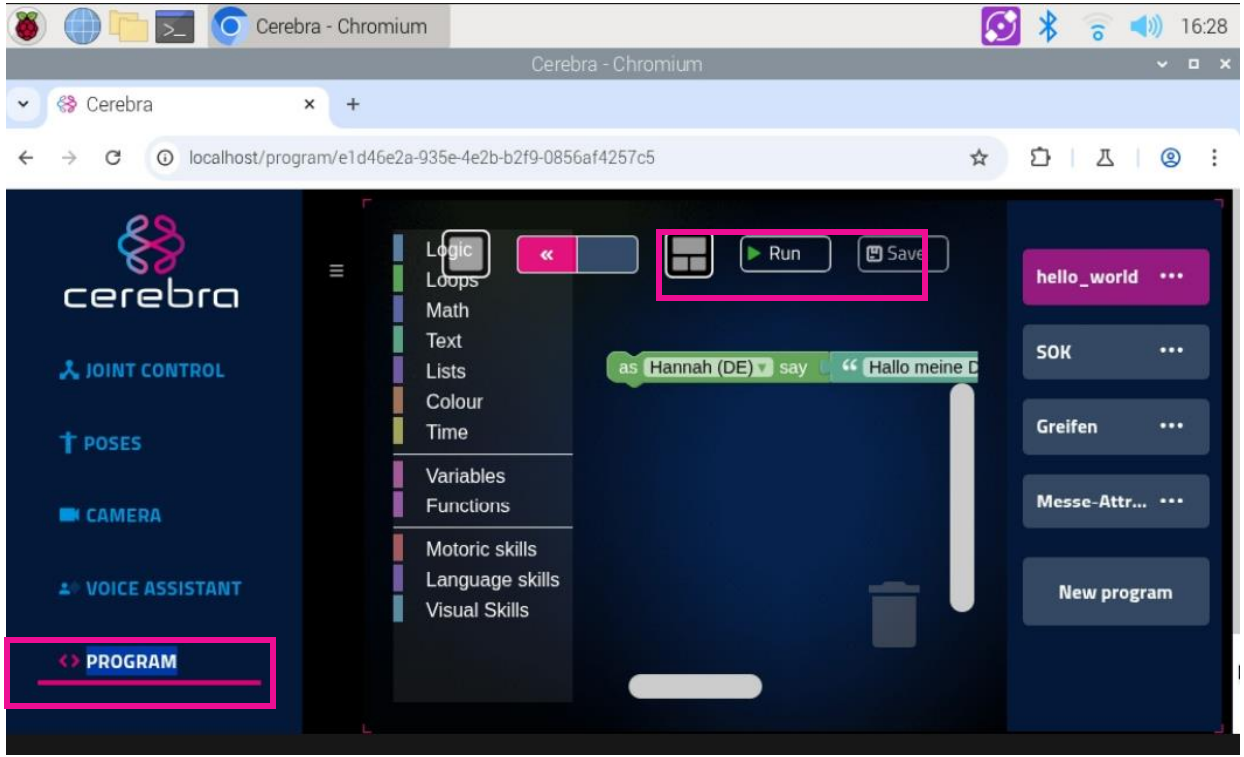
Feature 3

Click on smart connect API, get in touch with pib team at team@pib.rocks to provide you with a token, enter this token, a new password and start talking with pib



Feature 4

Click on block programming to create a script with basic blocks, then click run to start it



Congratulations

You did a great job, you have started pib!

Do you need support?

Or do you need our pib.Box with all non-printable parts?

Or maybe you have some new ideas and improvements?

Please contact us.

team@pib.rocks
Send us an email.

discord.com/invite/GRdpyeDu7P
Join us on Discord.

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Order non-printable parts for pib.