Reproducing this at home

# Introduction

In today’s workshop during Pi And More 9½ in Krefeld you have done some physical computing, controlled from Scratch running on a Raspberry Pi 2B or 3B which interfaced with an Arduino Nano that controlled the servo, LEDs, buttons, a joystick and a buzzer.

Depending on the time, you may also have worked with a small model duck on a pan/tilt platform and a board with buttons and LEDs which was in the same way controlled by an Arduino Nano and where students can program in Scratch on Raspberry Pi to use it.

# Getting the material

You can either download the material from Github and install it, or you can take a complete image on a USB stick. See below.

## Option 1: Download from Github when you are home

You can find all material at: <https://github.com/hansdejongehv/Weekendschool-PiAndMore>

This includes the BoM (Bill of Material) for the boards that you used.

There is a script that you can download and execute from a Raspberry Pi connected to the internet.

To get this kicked off

1. Go to [www.github.com](http://www.github.com).
2. Search for Weekendschool or PiAndMore.
3. Click the ***Releases*** link.
4. Select the latest release.
5. Look at the release notes to see how you have to install.
6. Open a command prompt the Raspberry Pi.
7. Copy the series of commands into a script, make the script executable and run it, or copy/paste line by line into the command prompt window.

Note: it may be that as a learning from the workshop some updates are needed. It is the intent that a final release – if necessary – will be available by the morning of **Tuesday 23 January 2017**.

## Option 2: Copy an image to your USB stick TODAY

You can take a compressed copy of the exact image that was at the Raspberry Pi at the beginning of the workshop. For this:

1. Make sure you have ca. 1 GB free on your USB stick.
2. Ask one of the teacher / helpers for a USB stick with the source. We have a few available.
3. Copy the image over.
4. At home install Win32DiskImager and 7-Zip on a Windows machine.
5. Extract the .img file from the 7-ZIP archive.
6. Write the image to a micro SD card of at least 8 Gbyte (class 10 or better) using Win32DiskImager.
7. When you have started, expand the file system xxxx

# Downloading your work of today to your USB stick

1. Put your USB stick in the USB hub.
2. Copy the material you edited. All of that should be on the desktop.
3. Feel free to further copy any file you want.

# Questions, suggestions and remarks

If you have questions or remarks, feel free to contact us by email at

[hans.piam@hanselma.nl](mailto:hans.piam@hanselma.nl)

In case you have specific questions about scratchClient then you can directly contact

[heppg@web.de](mailto:heppg@web.de)

Be prepared that it may take a little while to get the answers, since we may be travelling.

Of course we love to hear from you whether you liked it or not and if you have suggestions for improvement in case we would run this workshop in future.

# Finally

We hope that you enjoyed the workshop. Have a safe trip home!

Krefeld, 14 January 2017

Hans de Jong

Gerhard Hepp

Ramon Baas