

# Raspberry Pi setup

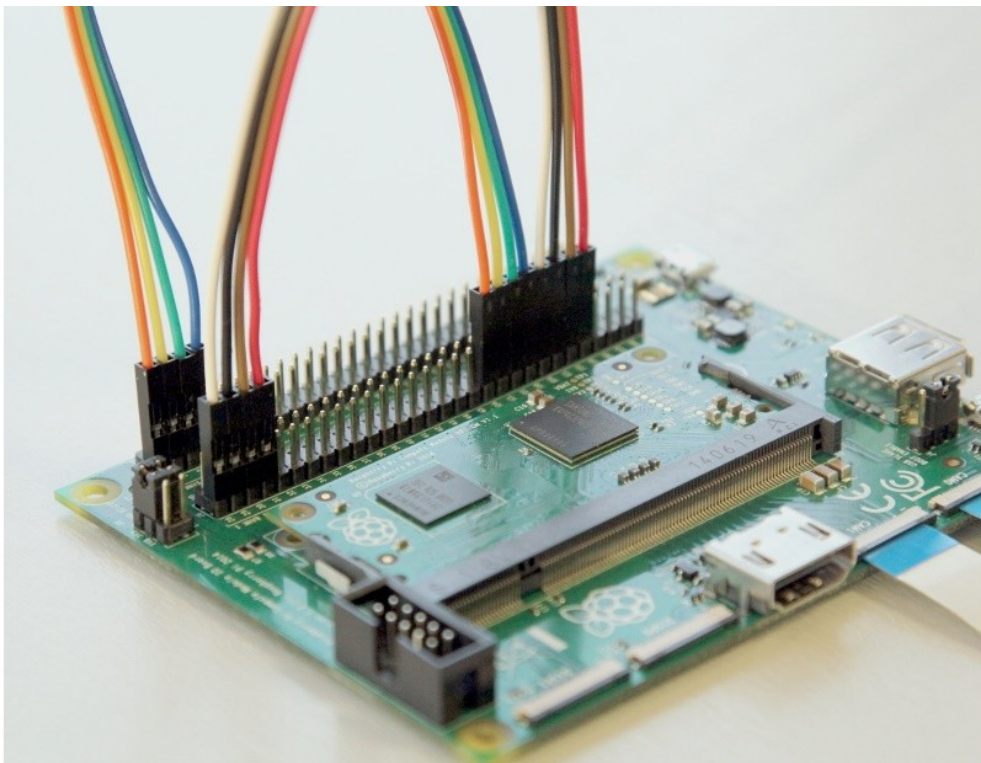
Already done, if you wish to run a demo, skip to the next chapter

## SD card preparation:

- Use [Raspberry Pi Imager](#) to flash the SD card with Raspberry Pi Buster OS (Do not use Bullseye OS)
- Within Raspberry, Pi Imager enable SSH, Wifi
- Raspberry pi user/pass: pi/test

## OS preparation:

- Optional: use a USB hub to connect the wireless dongle, keyboard, and mouse to Raspberry Pi
- Connect display over an HDMI cable
- Make sure Raspberry pi is connected to the network
- Open terminal (SSH or on Desktop) and update OS: `sudo apt update` | `sudo apt full-upgrade`
- And reboot `sudo reboot`
- Power off Raspberry Pi
- Wire control signals on the IO board like in the diagram below:



- Connect to the Raspberry Pi terminal

- Run command `sudo raspi-config`
  - Select menu Interface options / Camera and select ENABLE
  - Do not restart when asked, exit configuration program
  - Update blob configuration `sudo wget https://datasheets.raspberrypi.com/cmio/dt-blob-dualcam.bin -O /boot/dt-blob.bin`
  - Now reboot with a command `sudo reboot`
  - After Raspberry has rebooted, connect to the console and check if the camera is detected `vccencmd get_camera`
  - In order to test the video, run command `raspivid -f -k -awb greyworld -mm average -t 0`
  - For more convenient behavior, add this command to `/etc/rc.local` - camera will start video on HDMI port right after reboot
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