

Perquisite

Hardware

- Raspberry Pi Pico
- USB-A to Micro-USB cable
- HDMI cable
 - or here HDMI-to-VGA adapter and VGA cable (5V input was necessary)

for ubuntu/debian:

```
sudo apt install cmake gcc-arm-none-eabi libnewlib-arm-none-eabi build-essential
```

for arch:

```
sudo pacman -S cmake arm-none-eabi-gcc arm-none-eabi-newlib base-devel
```

Pico C/C++ SDK:

create pico folder for various projects and get Pico C/C++ SDK:

```
cd ~  
mkdir pico  
cd pico  
git clone https://github.com/raspberrypi/pico-sdk  
cd pico-sdk  
git submodule update --init
```

Building examples from PicoDVI repo (credit to Luke Wren)

Clone the PicoDVI repo from Luke Wren:

```
cd ~/pico
git clone https://github.com/Wren6991/PicoDVI.git
```

For the DVI Sock edit the file `./PicoDVI/software/include/common_dvi_pin_configs.h` from the current directory.

Define your wanted struct as default config for the precompiler. Here we want `pico_sock_cfg`. Add it before the conditioned definiton.

```
#define DEFAULT_DVI_SERIAL_CONFIG pico_sock_cfg
#ifndef DEFAULT_DVI_SERIAL_CONFIG
#define DEFAULT_DVI_SERIAL_CONFIG picodvi_dvi_cfg
#endif
```

```
cd PicoDVI/software/
mkdir build
cd build
export PICO_SDK_PATH=~/pico/pico-sdk
make -j$(nproc)
```

Built examples are under the `{repo}/software/build/apps` folder.

Press and hold the BOOTSEL key on the board, then connect the board to your PC. Copy and paste the `{app}/{app}.uf2` into the mounted Pico.