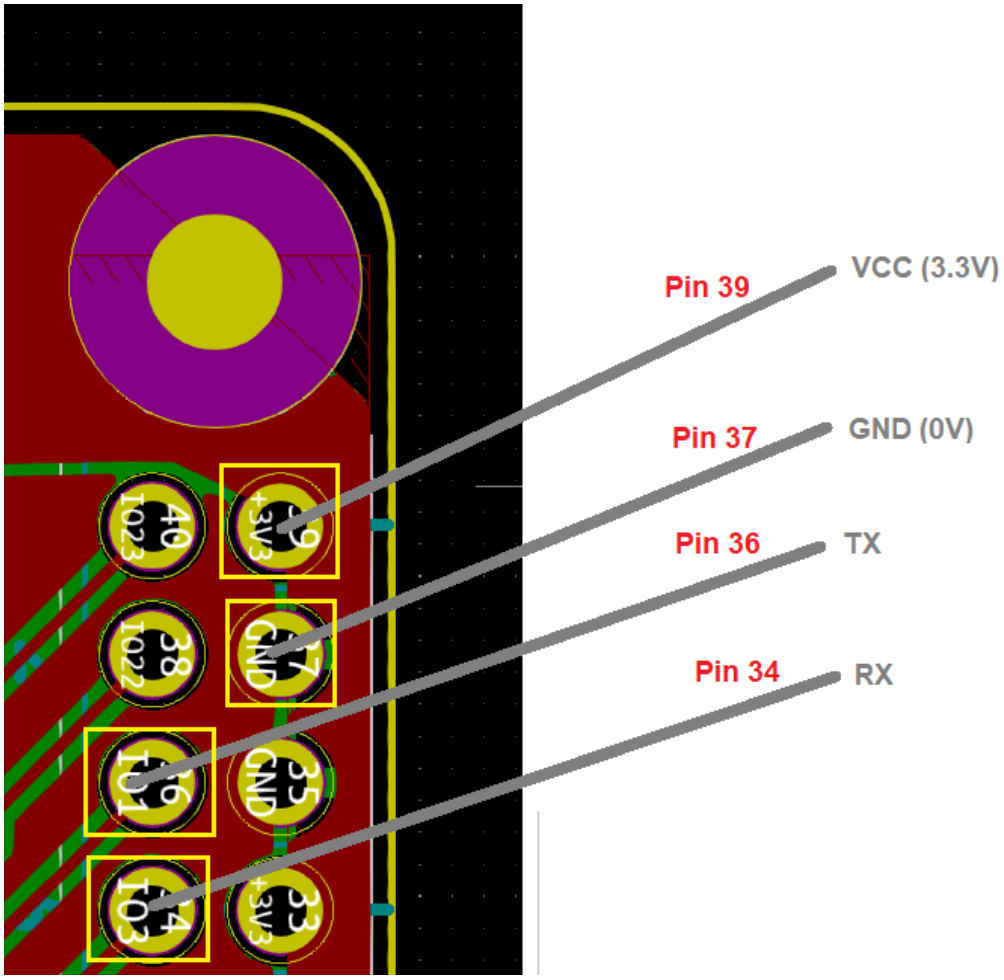
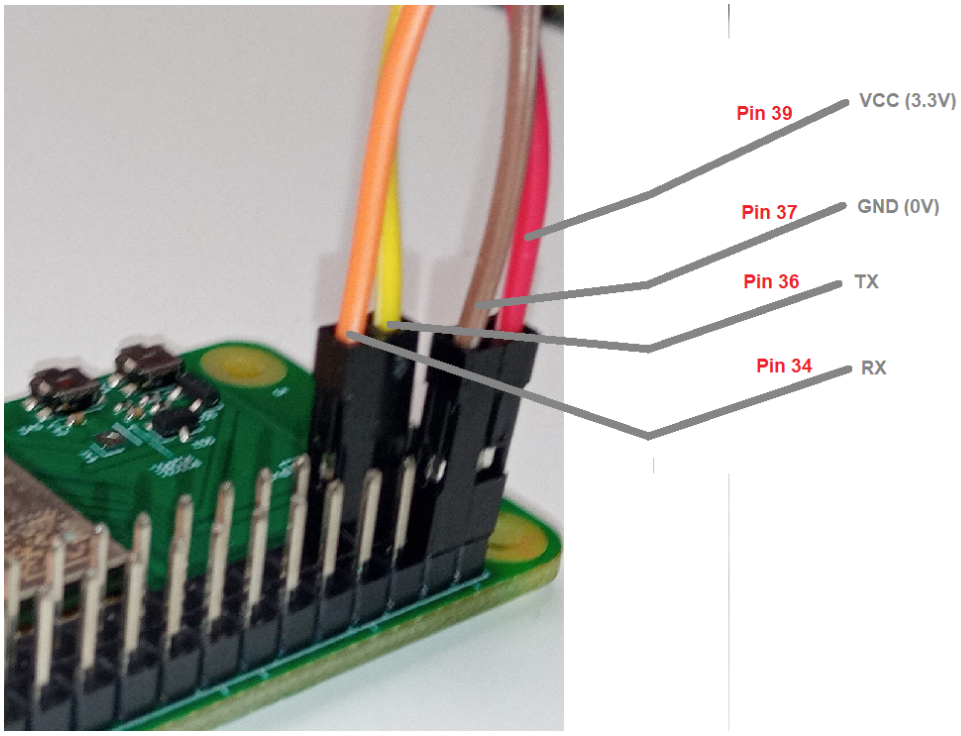
BR Core PCB programming

Wiring

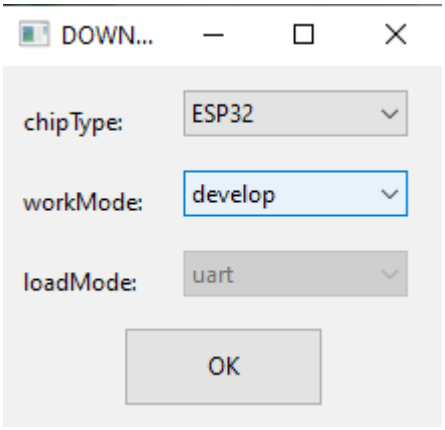




1. Disconnect the serial board from your PC
2. Connect RX of the serial board to Pin 34
3. Connect TX of the serial board to Pin 36
4. Connect GND of the Serial board to Pin 37
5. Connect 3V3 of the Serial board to Pin 39

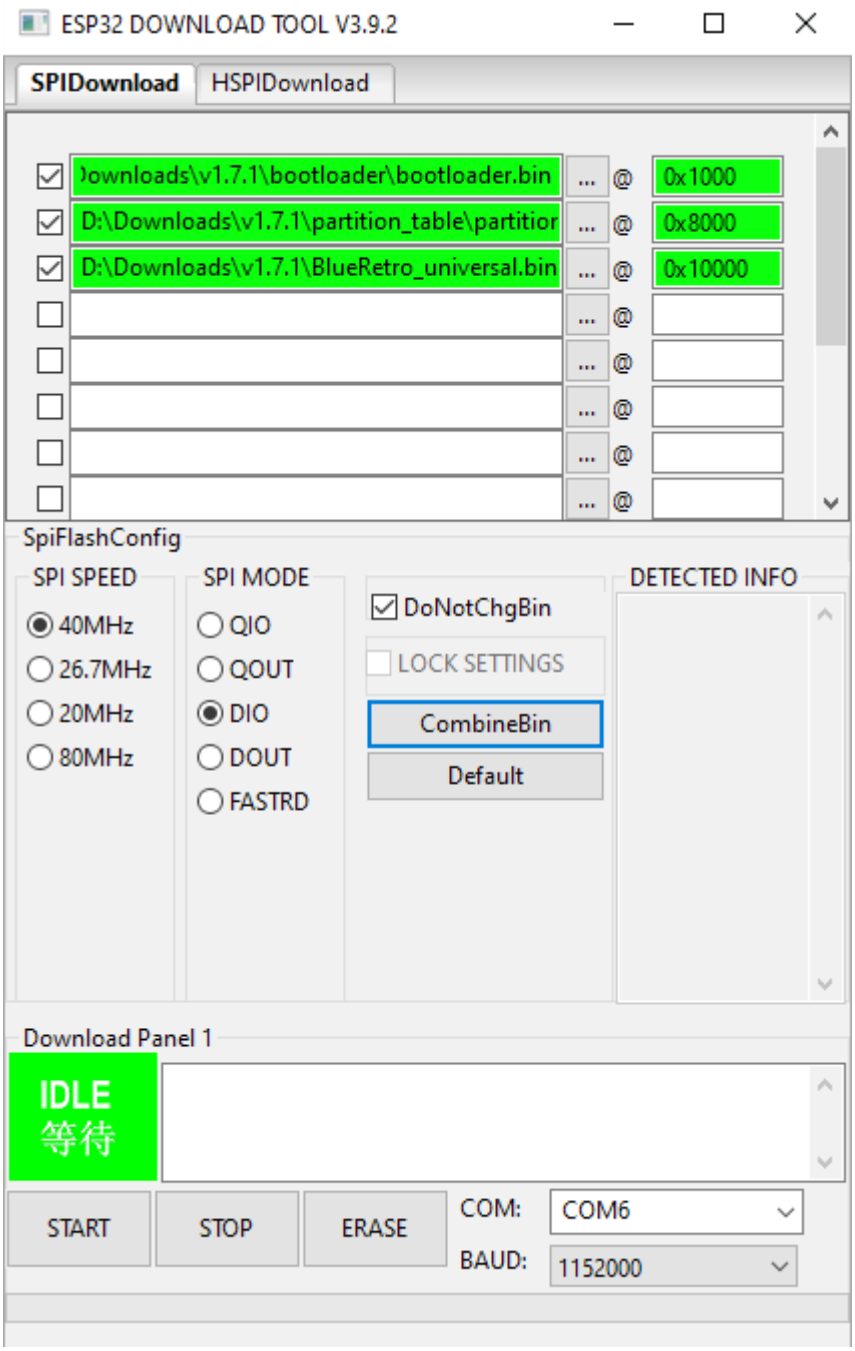
Setup

1. Download and install the flash_download_tool:
2. Unzip and run flash_download_tool_x.y.z.exe
3. Select ESP32, develop and UART:



4. Select the bootloader.bin, partition-table.bin, and br_universal.bin files from the Firmware_BR/bin folder of the UC_GT_BR project folder

5. Add addresses 0x1000 for bootloader.bin, 0x8000 for partition-table.bin, and 0x10000 for br_universal.bin



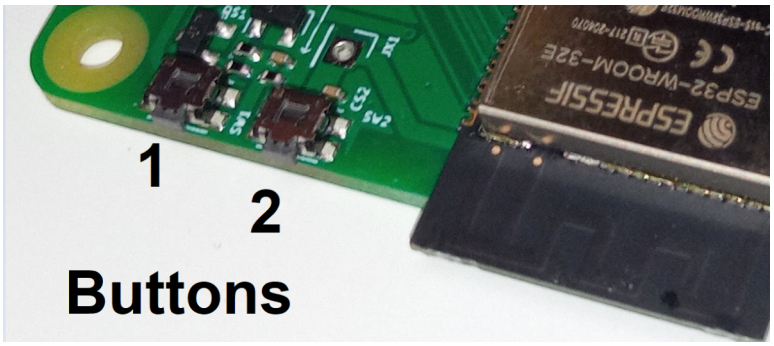
6. Plug the serial board into your PC
7. Select the new COM port for your USB to Serial adaptor
8. Leave baud rate as is, unless writing fails later, then decrease baud rate

Programming

1. Click START, in the flash_download_tool command prompt window, dots should start to appear:

```
case ok
test offset :  32768 0x8000
case ok
test offset :  65536 0x10000
case ok
.....................
```

2. Press and hold both buttons 1 and 2 on the GrechTech PCB for 3 seconds, then release button 2, then after 1 more second release button 1 as well.

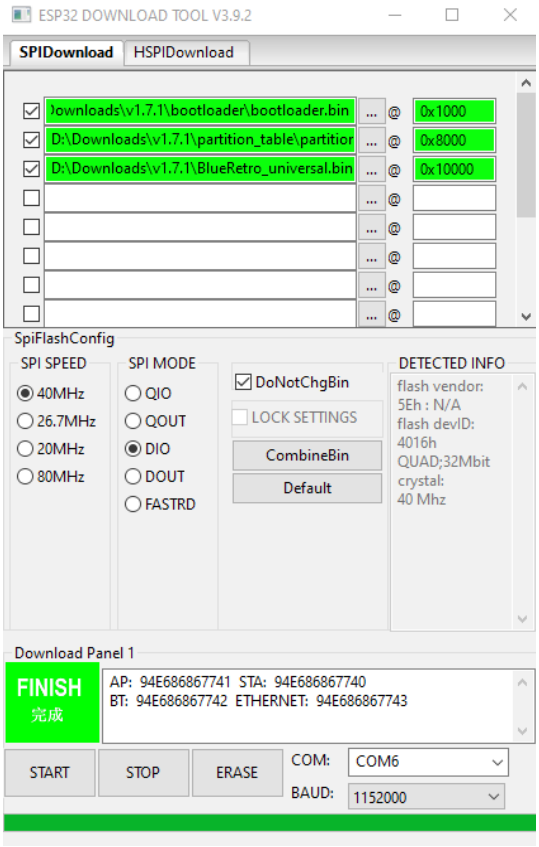


You should see the following begin to appear in the command prompt:

```
.....................................
.............
Uploading stub...
Running stub...
Stub running...
Changing baud rate to 1152000
Changed.
FLASH_CRYPT_CNT 0
ABS_DONE_0 False
Compressed 23104 bytes to 14675...
Compressed 3072 bytes to 153...
Compressed 541632 bytes to 331785...

is stub and send flash finish
```

3. Once it is done the main flash_download_tool window should now look like this:



4. DONE!

Additional info: