

Marlin 2.0.x Firmware Changes

In Platformio.ini file

change: `default_envs =`

`BIGTREE_GTR_V1_0`

In Configuration.h file change:

`#define SERIAL_PORT -1`

`#define SERIAL_PORT_2 3`

`#define MOTHERBOARD`

`MOTHERBOARD BOARD_BTT_GTR_V1_0`

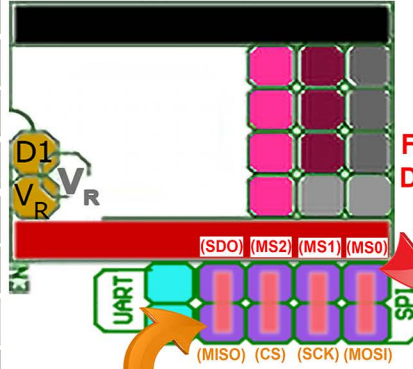
Note: Serial Port definitions in Marlin 2.0.x for GTR V1.0 Board:

-1: USB Port; 3: TFT Port; 6: WIFI

0 - M1; MS1 0 - M0; MS0
1 - M2; MS2 OR 1 - M1; MS1
2 - M3; MS3 2 - M2; MS2

MISO PB6
SCK PB3
MOSI PG15
X-CS PC14
Y-CS PE1
Z-CS PB5
E0-CS PG10
E1-CS PD4
E2-CS PC12

SPI



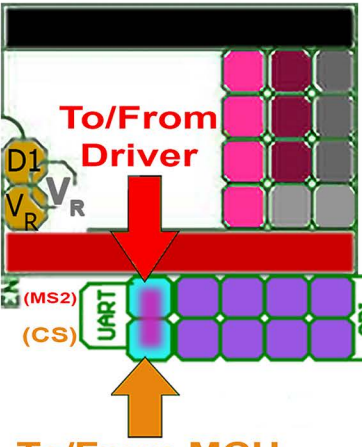
To/From Driver

To/From MCU

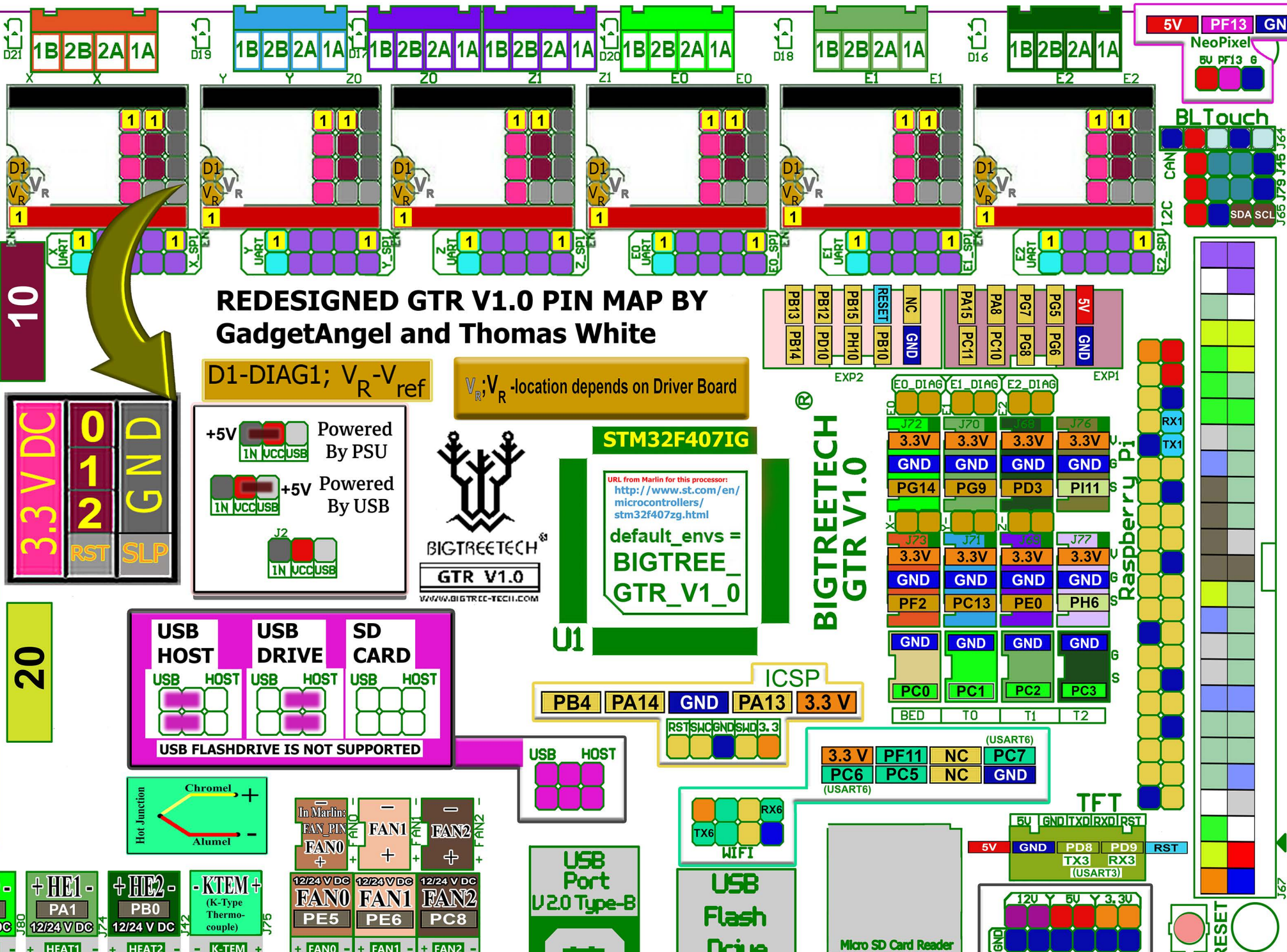
UART

(CS)

X-CS PC14
Y-CS PE1
Z-CS PB5
E0-CS PG10
E1-CS PD4
E2-CS PC12



To/From MCU



REDESIGNED GTR V1.0 PIN MAP BY GadgetAngel and Thomas White

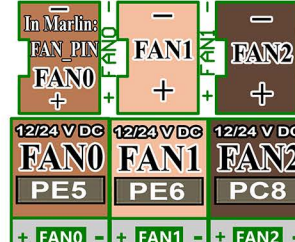
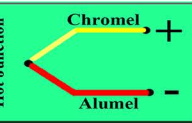
D1-DIAG1; $V_R - V_{ref}$ $V_R: V_R$ -location depends on Driver Board

+5V Powered By PSU
+5V Powered By USB

STM32F407IG

URL from Marlin for this processor:
<http://www.st.com/en/microcontrollers/stm32f407zg.html>
default_envs =
BIGTREE
GTR_V1_0

BIGTREETECH
GTR V1.0

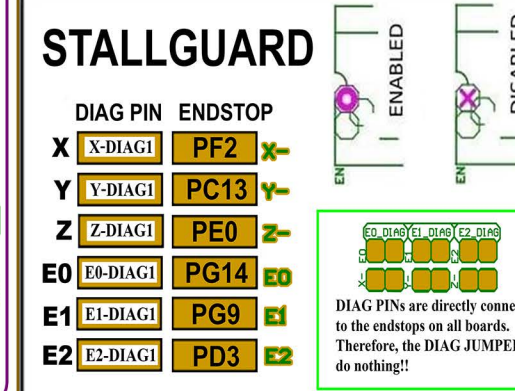
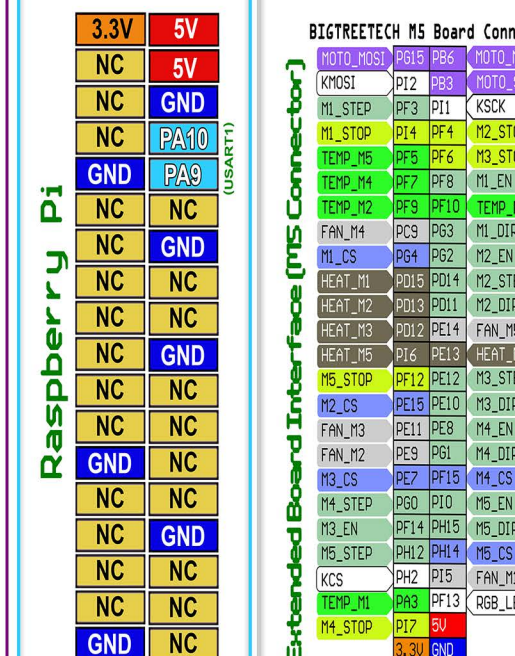
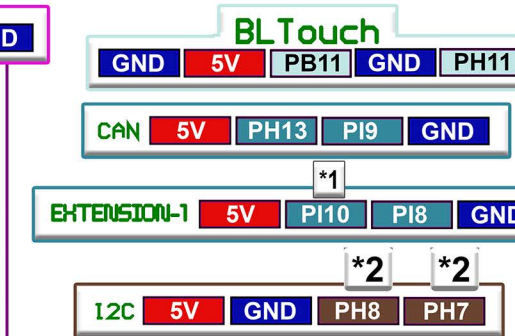


20 For the heated bed.

15 For stepper motor drivers.

10 For logic, fans, hotend heaters.

X EN STEP DIR PF1 PC15 PF0 Y EN STEP DIR PE4 PE3 PE2 Z EN STEP DIR PB9 PB8 PB7^{*1} E0 EN STEP DIR PG13 PG12 PG11 E1 EN STEP DIR PD7 PD6 PD5 E2 EN STEP DIR PD2 PD1 PD0



Note Concerning the TMC2209 in UART Mode ONLY:
If using limit switches/ends, ensure the DIAG pin is NOT plugged into the GTR 1.0 board (i.e., the DIAG pin must be cut off the driver board on the TMC2209). This note does not apply to the TMC2130, TMC5160 or TMC5161 in SPI mode.
Note: For TMC2209, TMC2130, TMC5160 and TMC5161 (any Driver Board that supports sensor-less homing) if you install it on the extruder and you want to use a filament runout sensor, remove the DIAG/DIAG1/DIAG0 PIN to allow the filament runout sensor to work properly.

^{*1} THE CORRECTED PIN VALUE. THE CORRECT PIN VALUE CAME FROM BTT's GTR V1.0 SCHEMATIC DIAGRAM!

^{*2} WILL WORK WITH 3.3 OR 5V. A LOT OF PINS ARE 5V TOLERANT. ONLY TESTED I2C - CHECK DATASHEET AND SCHEMATIC!