Marlin 2.0.x Firmware Changes:

In Platformio.ini file change: default_envs = STM32G0B1RE_btt

In Configuration.h file change:
#define SERIAL_PORT -1
#define SERIAL_PORT_2 2
#define MOTHERBOARD BOARD_BTT_SKR_MINI_E3_V3_0

Note: Serial Port definitions in Marlin 2.0.x for this Board:
-1: USB Port; 2: TFT Port;

Micro SD Card Reader

NSS	PA4
MOSI	PA7
CLK	PA5
MISO	PA6
DET	PC4

Note: If you are unsure about any of the information provided on this PIN Diagram, please ask for help from the 3D printer community, check the Processor's data sheet and board's schematic diagram.

XM 2B 1B 1A 2A
YM 2B 1B 1A 2A
ZAM Z Sockets Wired in Parallel **ZBM** 2B 1B 1A 2A / 2B 1B 1A 2A
EM 2B 1B 1A 2A

BIQU BIGTREETECH **BIGTREETECH**

X-TMC2209 Y-TMC2209 Z-TMC2209 E0-TMC2209

REDESIGNED PIN MAP BY GadgetAngel

SPI1 Header
5V GND
PA4 PA5
PA7 PA6
3.3V GND

MOTOR UART
RX PC11
TX PC10

USB Port V2.0 Type-C
USB-C_D- PA11
USB-C_D+ PA12

PD0 PD2 PD3 PD4 PD5 I/O
SW_USB
RESET
USB-C

STM32G0B1RCT6

URL for this processor:
https://www.mouser.com/datasheet/2/389/dm00748675-2400697.pdf
U2

SWD
SWD
3.3V SWDIO GND SWCLK RST
3.3V GND NRST
3.3V PA13 PA14

VIN
VIN
DCIN DCIN
12/24 V 12/24 V
GND GND

20

BIGTREETECH SKR MINI E3
Version: V3.0

DCIN 12/24 V DC
+POWER-
- HB + PC9
- E0 + PC8 12/24V DC

BTT SKR MINI E3 V3.0

GND GND 5VOT 5VOT
GND VOUT
Neopixel1
GND PA8 NPWR
5VOT NPWR 5V Neo-PWR1

SPI1 Header
5V GND
NSS CLK
MOSI MISO
3.3V GND

EN STEP DIR

	EN	STEP	DIR
XM	PB14	PB13	PB12
YM	PB11	PB10	PB2
ZM	PB1	PB0	PC5
EM	PD1	PB3	PB4

SW_USB
MCU Powered by USB-C Port
MCU Powered by POWER_IN

Powered By MCU's 5V Rail +5V Neo-PWR1
Powered By DCDC Mode V1.0 board (bridge) +5V Neo-PWR1

PC14
GND
PA1
NPWR
GND

EXP1
PB5 PA15
PA9 RST
PA10 PB9
PB8 PD6
GND 5V

Z-PROBE

TFT
RST PA3 RX2 PA2 TX2 GND 5V
+FAN1- 12/24V DC PC7
PS-ON GND PC13
PWR-DET PC12 GND NC
E0-DIAG PC15
EM DIAG
E0-STOP PC15 GND 5V

XM DIAG PC0 YM DIAG PC1 ZM DIAG PC2 Z-DIAG
X-DIAG

+FAN2- 12/24V DC PB15
+FAN0- 12/24V DC PC6
X-STOP GND PC0
Y-STOP Y-DIAG GND PC1
Z-STOP GND PC2
THB GND PC4
TH0 GND PA0

20 For the heated bed, logic, fans and hotend

STALLGUARD
(Sensor-less Homing)

DIAG PIN ENDSTOP

	DIAG PIN	ENDSTOP	
XM	X-DIAG	PC0	X-STOP
YM	Y-DIAG	PC1	Y-STOP
ZM	Z-DIAG	PC2	Z-STOP
EM	E0-DIAG	PC15	E0-STOP

GadgetAngel