

3D printer

Resources

- [hotend change](#)
 - mount heatbreak and nozzle touching together and with **0.5mm gap** between head and nozzle
 - preheat hotend at ABS temp
 - fix nozzle with 1nm torque
 - [E3D V6 assembly](#)
 - [temperature tower](#)



z offset: subtract 0.25 to A4 paper without friction and without warm up

Flsun Super Racer

todo

Ender3 v2

- bed 70
- head 225
- Retraction Distance: 6.5mm.
- Retraction Speed: 25mm/s.
- Maximum Retraction Count: 10.
- Minimum Extrusion Distance Window: 10mm.
- Combing Mode: ON and set to "Within Infill" (no stringing).
- fan 100% for details or fan 0% for straight
- [bltouch](#)
- [jyers firmware settings in octoprint](#)

Geeetech A20



first layer speed
10mm/s





into start g-code
keep only first G28
as below

```
G28; auto home
G1 Z15 F300; linear move, 15mm vertical and set feedrate at 300
M107; turn fan off
G90 ; absolute positioning
M82 ; This command is used to override G91 and put the E axis into absolute
mode independent of the other axes.
G92 E0; set absolute position
M107 ; M107; turn fan off
G0 X10 Y20 F6000 ; move to X 10 mm Y 20 mm , feed rate 6000
G1 Z0.8 ; move Z to 0.8 mm [WHY MOVE VERTICALLY?]
G1 F300 X200 E40 ; push 40 mm of filament while moving at 300 mm/min to
position X=200
G1 F1200 Z2 ; move to position Z=2 at 1200 mm/min
G92 E0 ; set the extruder position as the new zeros
```

fetch marlin code and checkout same branch release on Marlin.git and Configurations.git

[apply this](#)

patch

```
git clone https://github.com/MarlinFirmware/Marlin.git
#git clone https://github.com/Jyers/Marlin.git

cd Marlin
check out latest release branch, for example 2.0.9.2
git clone https://github.com/MarlinFirmware/Configurations.git
cd Configurations
check out latest release branch, for example 2.0.9.2
#git clone https://github.com/Jyers/Configurations.git

# copy Configuration.h and Configuration_adv.h from examples
cd ..
rsync -av Configurations/config/examples/Geeetech/A20/ Marlin/

code .
// select default shell to bash Terminal: Select Default Profile

// change MOTHERBOARD
#define MOTHERBOARD BOARD_GT2560_V4_A20

// enable bltouch if present
// comment PROBE_MANUALLY and decomment BLTOUCH
//#define PROBE_MANUALLY
```

```
#define BLTOUCH
#define Z_MIN_ENDSTOP_INVERTING false // Set to true to invert the logic of
the endstop.
#define Z_MIN_PROBE_ENDSTOP_INVERTING false // Set to true to invert the
logic of the probe.
#define Z_SAFE_HOMING

// temporary
#define X_BED_SIZE 200
#define Y_BED_SIZE 200
#define X_MIN_POS -10

// original plate 260x260
//#define X_BED_SIZE 255
//#define Y_BED_SIZE 255
//#define Y_MIN_POS -5
```

install marlin auto build extension

change vscode settings.json

[javascript](#)

```
{
  "terminal.integrated.defaultProfile.linux": "bash"
}
```

To upload firmware add a **custom FFF** (no geeetech A20 model) printer and use upload firmware menu

- [z offset wizard](#)
- [pid tuning](#)

Anycubic Predator

[manual silicone 039](#)

- [recensione 1](#)
- [customizzazioni](#)
- [cura profile](#)
 - rename *predatorimage.png.stl* to *predatorimage.png*

custom spare parts:

- [enclosure](#)
- [Fan Duct](#)
- [sensor holder](#)

- [smoothers holder](#)
- [Filament Sensor Relocation](#)

Marlin firmware predator

clone this [repository](#)

add to Marlin/Configuration.h

```
#define LCD_SCREEN_ROT_180
```

change

```
#define TEMP_SENSOR_0 11
```

decomment in Marlin/Configurationadv.h `Enable for M105 to include ADC values read from temperature sensors. #define SHOWTEMPADC_VALUES` build project `scp .pio/build/trigorilla_pro/firmware.bin root@octoprint:/root` remove jumper jp1 and change other jumper to USB [video](#) getting info `stm32flash /dev/ttyUSB0 stm32flash 0.5` <http://stm32flash.sourceforge.net/> Interface serial_posix: 57600 8E1 Version : 0x22 Option 1 : 0x00 Option 2 : 0x00 Device ID : 0x0414 (STM32F10xxx High-density) - RAM : 64KiB (512b reserved by bootloader) - Flash : 512KiB (size first sector: 2x2048) - Option RAM : 16b - System RAM : 2KiB `make backup` `stm32flash -r predator-original.bin /dev/ttyUSB0` write firmware `stm32flash -v -R -b 57600 -g 0x8000000 -w firmware.bin /dev/ttyUSB0` platformio.ini `[env:trigorillapro] platform = ststm32 board = genericSTM32F103ZE buildflags = !python Marlin/src/HAL/STM32F1/build_flags.py` === Auto calibration === * configuration → delta calibration → auto → enter → wait → enter * configuration → store === z offset === Disable software endstops (M211 S0), preheat and with motion z to grab paper: get deltax (positive or negative, for example 0.3) * configuration → runout sensors → off * temperature → preheat PLA → preheat PLA * motion → z adjust probe z-offest adding deltax: * configuration → probe z-offest → **z-offest+deltax** enable software endstops (M211 S1) store settings === z babysteps === `M290 Z0.25 ; move up 0.25mm on the Z axis ... M500 ; store` ===== PID autotune ===== start pid autotune at 220C and 8 cycles `M303 S220 C8` wait and store proposed values with M301 `M301 P13.83 I0.76 D63.18` save settings `M500` ===== Thermocouple tuning ===== Get actual extruder thermocouple from Menu → About → Thermistors and from Configuration.h get actual thermistor_xx.h utilized set hotend to 200C from control and check in terminal ADC value (138.06 in example) `Recv: T:200.47 /200.00 (138.06) B:21.64 /0.00 (982.37) @:47 B@:0`

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