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How to compile STM32 with eclipse

Geeetech R&D 2018/5

1. Install java

http://www.geeetech.com/OpenSource/eclipse/chromeinstall-8u171.exe (we choose 32bit version)

2. Download and unzip

Toolchains: http://www.geeetech.com/OpenSource/eclipse/arm-none-eabi-gcc-8.1.0-180502-win32.7z,

Gnu mcu eclipse: http://www.geeetech.com/OpenSource/eclipse/gnumcueclipse4.3.2-oxygen-win32x86.zip,

3D printer source code: STM32f103r.zip

2.1 run eclipse

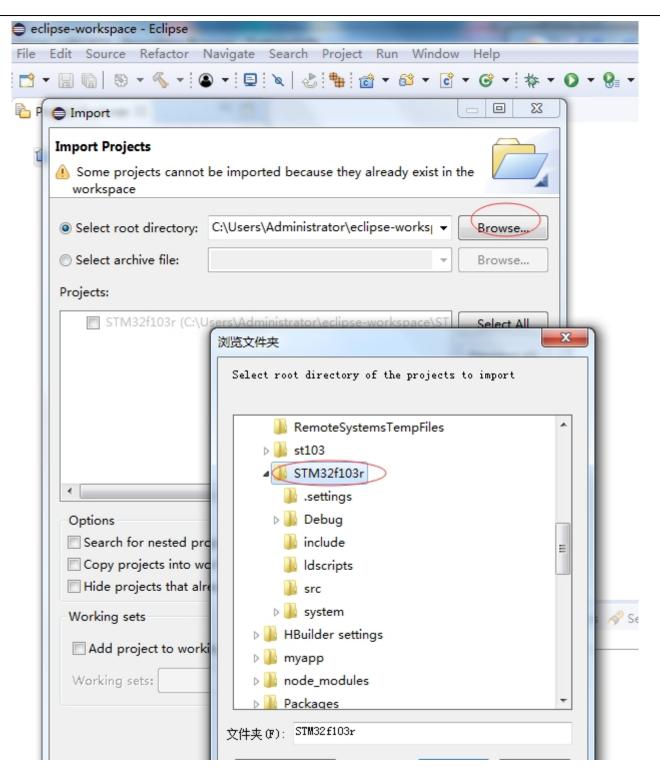
After unzip, go to path: gnumcueclipse4.3.2-oxygen-win32x86\eclipse run eclipse.exe

2.2 Import Project

file → Import→General→Existing Projects into Workspace



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2.3 Change arm gcc tool chain path

Window→Preferences→MCU→Global ARM Toolchains Paths→Browse and choose the toolchains bin path.

For example "E:\GTM32\arm-none-eabi-gcc-8.1.0-180502-win32\arm-none-eabi-gcc-8.1.0-180502\bin"



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2.4 Build project

Run Build project

```
clipse-workspace - STM32f103r/src/main.c - Eclipse
File Edit Source Refactor Navigate Search Project Run Window Help
 Project Explorer 🛭 🗀 🖟 main.c 🗵
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   EO X ■T ®B D
                                                                                                                   252
253⊖ void System_Init_Action(void)
                                                     🖆 🖹 ↓ªz 😿 💅 ● 💥
                       ▶ In data_handle.h
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     sd_print.h
                                                                                                                                              system_infor.feed_tare=100;
Add_Message(PRINTER_MESSAGE);
                       rxfile.h
                                                                                                                    256
257 }
                       b h delay.h
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     serial print.h
                                                                                                                   257 }
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                       Dgus_screen.c
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                variable.h
                       Daus screen.h
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     data handle.h
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                recovery_print.h
                       b h diskio.h
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     System_message : u8
                       ▶ 🖟 endstop.c
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       c machine_name : const char
                       ▶ h endstop.h
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     serial connect flag : u8
                       serial_connect_flag3 : u8
                                                                                                               266 void main(void)
267 {
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               WIFI_Bebug_Flag : u8
                       ▶  fat.c
                       Command_Buffer : char[]
                       Ξ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Firmware_Updata_Flag : u8
                       GPIO_InitTypeDef GPIO_InitStructure;
RCC_AP82PeriphClockEnd(RCC_AP82Periph_GPIOB_|RCC_AP82Periph_GPIOD,ENABLE);
GPIO_InitStructure.GPIO_Pina_GPIO_Pin_0;
GPIO_InitStructure.GPIO_Mode= GPIO_Mode Out PP;

    Port_to_Slave_init(void) : vo

                       DE Main.c
                             mmc_sd.c
                                                                                                               Problems 🧔 Tasks 🖳 Console 🛭 🔲 Properties 🤗 Search
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ▶ 🖟 mmc_sd.h
                       ▶ R planner.c
                                                                                                              CDT Build Console [STM32f103r]
                                                                                                             CDI Build Console (streamstruor)
..\src\Command.c: In function 'Processing_command':
..\src\Command.c: 12627:48: warning: 'temp_temperature' may be used uninitialized in this function [-Wmaybe-uninitialized]
Setting.targe_temperature[8ED] = temp_temperature;
                       ▶ h planner.h
                       p | qr_solve.c
                       Setting.targe_temperature|BEU] = temp_temperature;

arm-none-eabi_gcc =ncpu=cortex=m3 =mthumb - 0g -fmessage=length=0 -fsigned-char -ffunction-sections -fdata-sections -ffreestanding -fno-move-loop-invariants -Wall -Wextra -g3 -DDEBUG -DUSE_FUL
arm-none-eabi_gcc =ncpu=cortex=m3 =mthumb - 0g -fmessage=length=0 -fsigned-char -ffunction-sections -fdata-sections -ffreestanding -fno-move-loop-invariants -Wall -Wextra -g3 -DDEBUG -DUSE_FUL
arm-none-eabi-gcc =ncpu=cortex=m3 =mthumb - 0g -fmessage=length=0 -fsigned-char -ffunction-sections -fdata-sections -ffreestanding -fno-move-loop-invariants -Wall -Wextra -g3 -DDEBUG -DUSE_FUL
arm-none-eabi-gcc =ncpu=cortex=m3 =mthumb - 0g -fmessage=length=0 -fsigned-char -ffunction-sections -fdata-sections -ffreestanding -fno-move-loop-invariants -Wall -Wextra -g3 -DDEBUG -DUSE_FUL
arm-none-eabi-obj-gcopy -o intex=m3 =mthumb - 0g -fmessage=length=0 -fsigned-char -ffunction-sections -fdata-sections -ffreestanding -fno-move-loop-invariants -Wall -Wextra -g3 -DDEBUG -DUSE_FUL
arm-none-eabi-obj-gopy -o intex=m3 =mthumb - 0g -fmessage=length=0 -fsigned-char -ffunction-sections -fdata-sections -ffreestanding -fno-move-loop-invariants -Wall -Wextra -g3 -DDEBUG -DUSE_FUL
arm-none-eabi-obj-gopy -o intex=m3 =mthumb - 0g -fmessage-length=0 -fsigned-char -ffunction-sections -fdata-sections -ffreestanding -fno-move-loop-invariants -Wall -Wextra -g3 -DDEBUG -DUSE_FUL
arm-none-eabi-obj-gopy -o intex=m3 =mthumb - 0g -fmessage-length=0 -fsigned-char -ffunction-sections -fdata-sections -ffreestanding -fno-move-loop-invariants -Wall -Wextra -g3 -DDEBUG -DUSE_FUL
arm-none-eabi-obj-gopy -o intex=m3 =mthumb - 0g -fmessage-length=0 -fsigned-char -ffunction-sections -fdata-sections -ffreestanding -fno-move-loop-invariants -Wall -Wextra -g3 -DDEBUG -DUSE_FUL
arm-none-eabi-obj-gopy -o intex=m3 =mthumb - 0g -fmessage-length=0 -fsigned-char -ffunction-sections -fdata-sections -ffreestanding -fno-move-loop-invariants -Wall -Wextra -g3 -DDEBUG -DUSE_FUL
arm-none-eabi-obj-gopy -o intex=m3 =mthumb -o intex=m3 =m
                       > le recovery_print.c
                       ⊳ 🖟 rocker.h
                       ⊳ 🖟 rxfile.h
                       b lc sd_print.c
                       ⊳ 🖟 sd.c
                                                                                                              15:21:16 Build Finished (took 1m:2s.400ms)
                       ⊳ 🖟 sd.h
 C /STM32f103r/src/main.c
```

3. Flash firmware to 3D printer

Download tools: smatto firmware tool.zip

https://github.com/Geeetech3D/Smartto/blob/master/tools/smatto firmware tool.zip?raw=true

- 3.1 Run main.exe
- 3.2 Choose the firmware bin file, for example: C:\Users\Administrator\eclipseworkspace\STM32f103r\Debug\STM32f103r.bin
- 3.3 Click Upgrade, wait for upgrading 100%.



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