./

GENESIS – Embedded C Learning Report



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# ACTIVITY 1: PERFORM BUILD USING GIT BASH

## EVENODD.C FILE

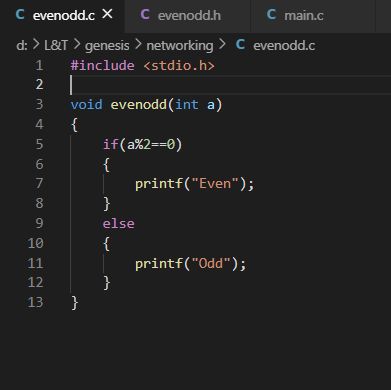
****

Figure : EVENODD.C

## EVENODD.H FILE

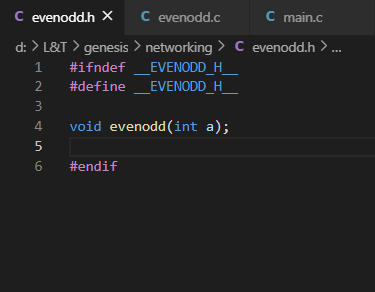


Figure : EVENODD.H

## MAIN FILE

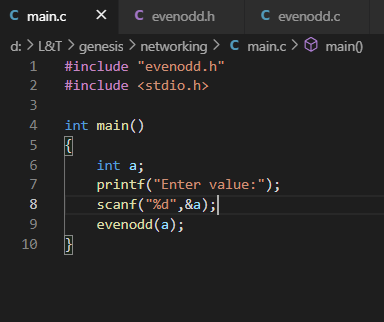


Figure : MAIN.C

## SCREENSHOT OF BUILD AFTER RUNNING IN GIT BASH

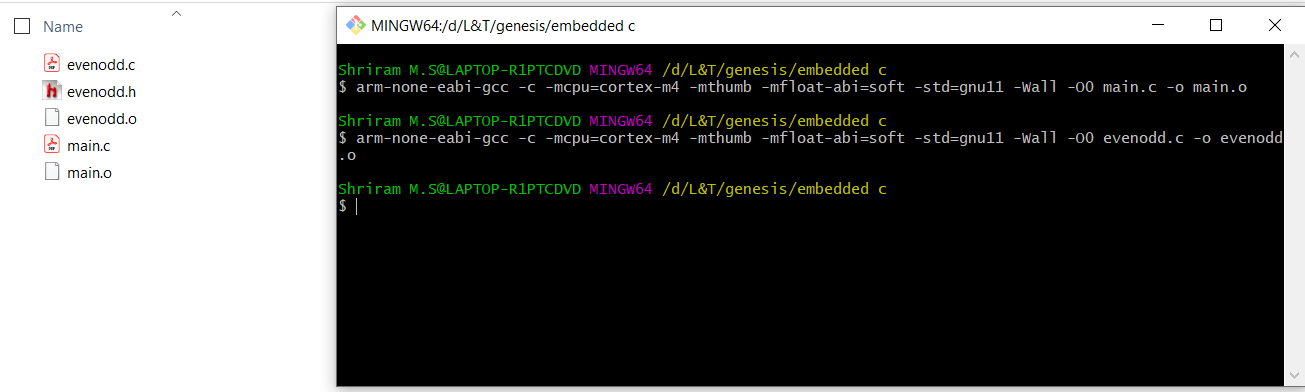


Figure : BUILD OF MAIN & EVENODD

# ACTIVITY 2: LINKER SCRIPT (CODE)

ENTRY(Reset\_Handler)

MEMORY

{

FLASH(rx):ORIGIN =0x08000000,LENGTH =1024K

SRAM(rwx):ORIGIN =0x20000000,LENGTH =128K

}

SECTIONS

{

.text :

{

\*(.isr\_vector)

\*(.text)

\*(.text.\*)

\*(.init)

\*(.fini)

\*(.rodata)

\*(.rodata.\*)

. = ALIGN(4);

\_etext = .;

}> FLASH

\_la\_data = LOADADDR(.data);

.data :

{

\_sdata = .;

\*(.data)

\*(.data.\*)

. = ALIGN(4);

\_edata = .;

}> SRAM AT> FLASH

.bss :

{

\_sbss = .;

\_\_bss\_start\_\_ = \_sbss;

\*(.bss)

\*(.bss.\*)

\*(COMMON)

. = ALIGN(4);

\_ebss = .;

\_\_bss\_end\_\_ = \_ebss;

. = ALIGN(4);

end = .;

\_\_end\_\_ = .;

}> SRAM

}

# ACTIVITY 3: STARTUP CODE

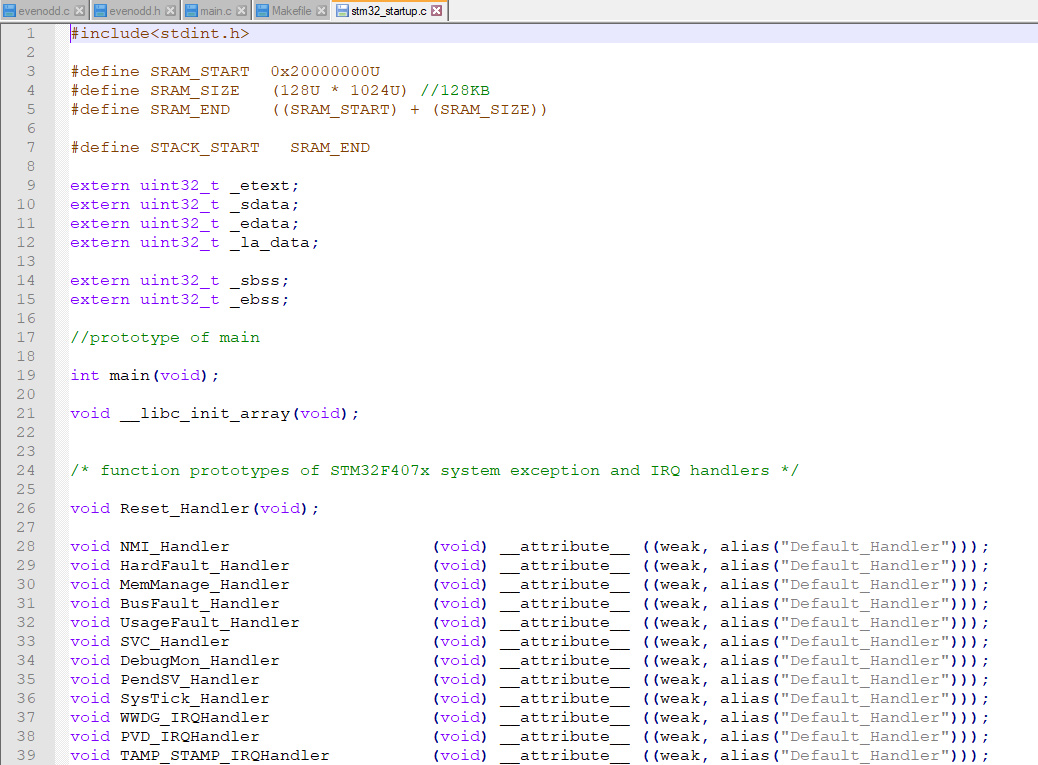


Figure : STARTUP CODE

# ACTIVITY 4: BUILD USING MAKEFILE

## SCREENSHOT OF MAKEFILE

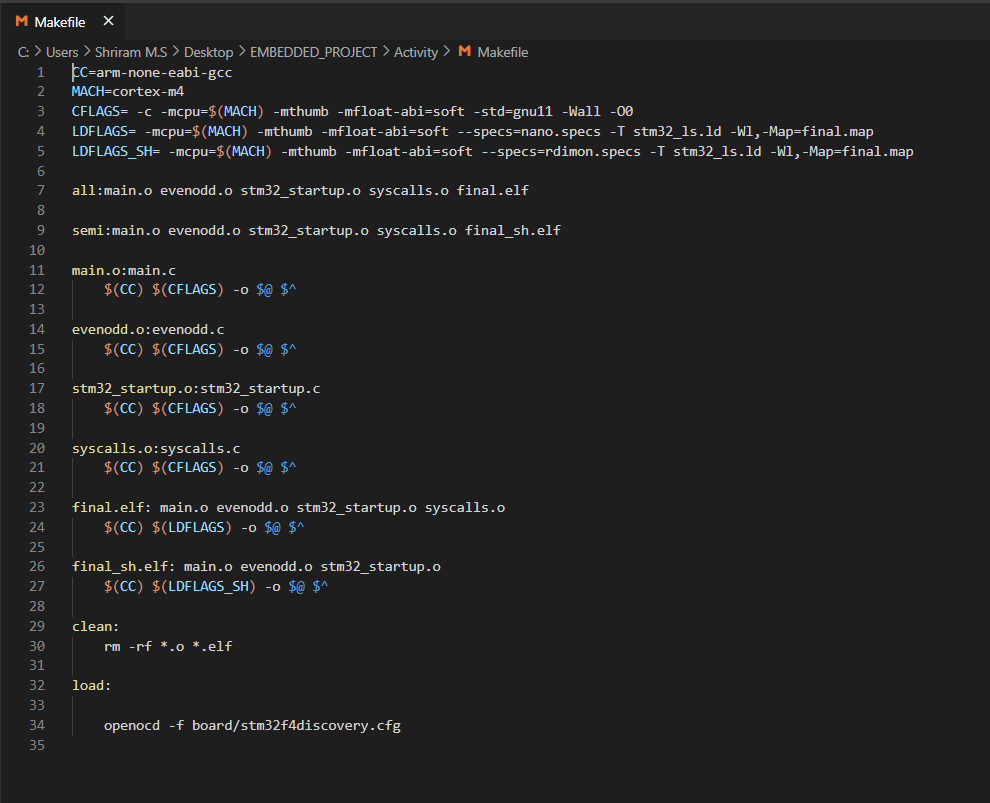


Figure : MAKEFILE SCREENSHOT

## SCREENSHOT OF OUTPUT AFTER RUNNING MAKE

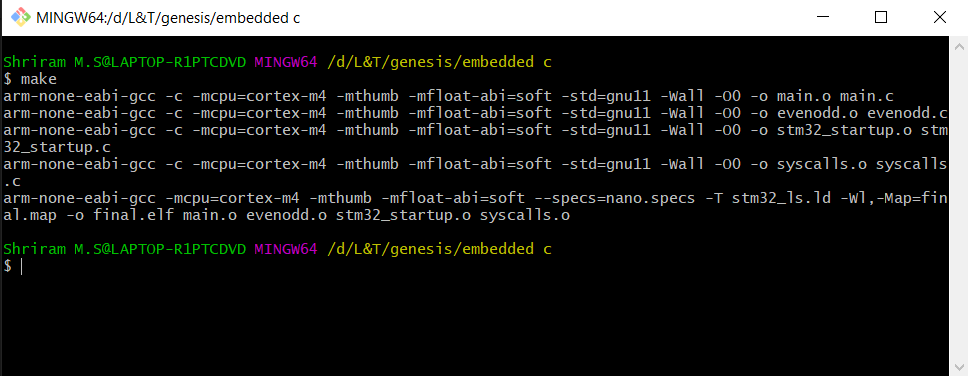


Figure : MAKEFILE OUTPUT

## OUTPUT FILES CREATED

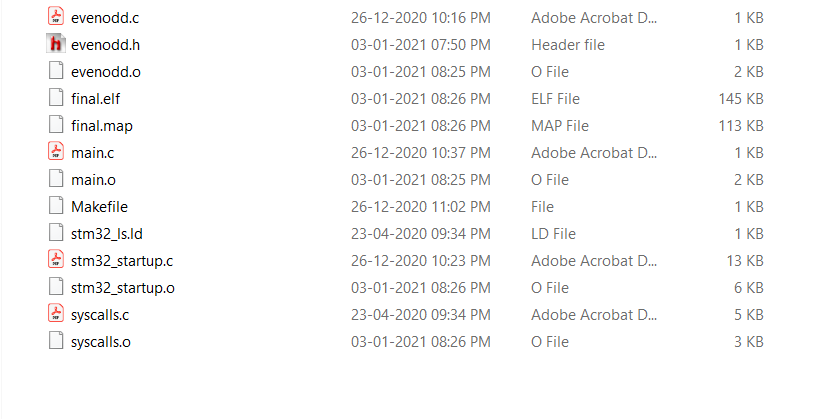


Figure : OUTPUT FILES CREATED AFTER MAKE

## GITHUB LINK

* [EMBEDDED\_PROJECT/Activity at master · 99003173/EMBEDDED\_PROJECT (github.com)](https://github.com/99003173/EMBEDDED_PROJECT/tree/master/Activity)

# MINIPROJECT

## SCREENSHOT OF STM32 IDE BUILD

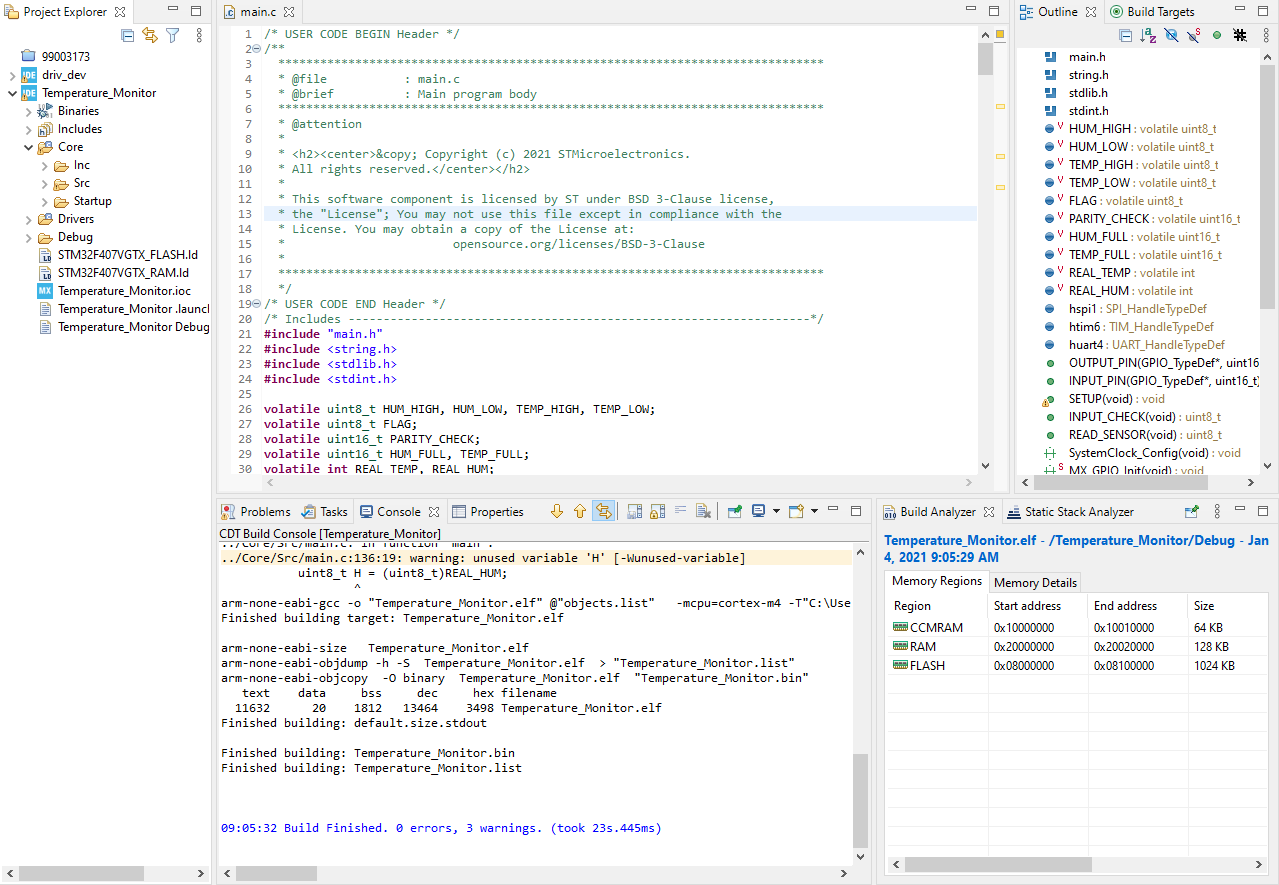


Figure : SCREENSHOT OF FINAL BUILD

## SCREENSHOT OF SERIAL MONITOR OUTPUT

### AMBIENT CONDITION – GREEN LED TOGGLES

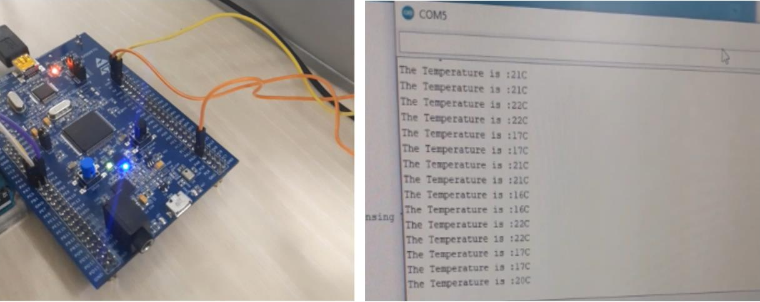


Figure : AMBIENT TEMPERATURE CONDITION

### THRESHOLD CONDITION – RED LED TOGGLES

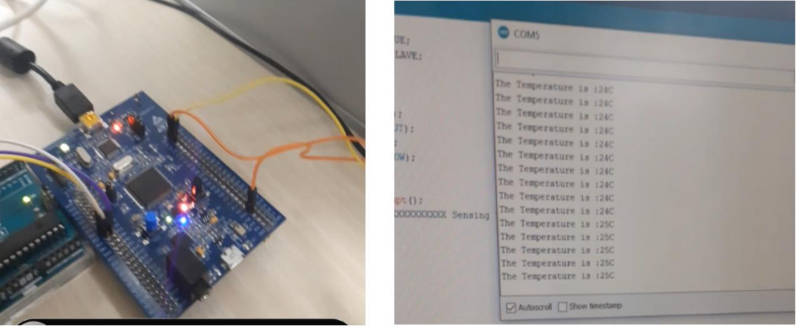


Figure : INCONVINIENT TEMPERATURE CONDITION

## GITHUB LINK

* [99003173/EMBEDDED\_PROJECT (github.com)](https://github.com/99003173/EMBEDDED_PROJECT)