Lab – 0 Datasheet

CpE 4010: Sensors, Actuators and Integration

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From procedure 5:

Insert your screenshot of the code and console

```
50 int main() (
6 int x = 0; // Define an integer named x and initialize it with 0
                                                      COR Built Connec (CT-003), 2002

2.22:13:19*** Building file: ./taturby/systems.
Building file: ./taturby/sy
                                                       Finished building: ../src/main.c
Finished building: ../startup/sysmem.c
                                                        building target: (FEANS)_lab0.elf
Invoking: NU GCL Linker
am-none-mail-age: **equa-corter-mail-arbin-bi-hard -mfpu-fpv4-sp-d16 -1°C:/Users/mc2d1/FEANSA/FEANS_lab0/LinkerScript.ld" -NI, "Hep-output.map -NI, --gc-sections -o "CPEANS_lab0.elf" g"objects.list" -la
finished building reget: (FEANS_Lab0.elf) about -df
                                                         make --no-priet-directory post-build
Generating binary and Printing size information:
Generating binary and size (FEG8012_labe.elf"
Text data bis dec hexillename
552 1088 1088 3128 c38 (FEG818_labe.elf
🖻 *main.c 🏻
    1 // Anindita Deb - Lab0 - 8/30/24
          3 #include <stdio.h>
          5 int main() {
     6
                                          int x = 0; // Define integer x and initialize it with 0
          8
                                           // Infinite loop
          9
                                         while (1) {
                                                                  x++; // Increment the value of x by 1 in each iteration
     10
    11
    12
                                           // This point will never be reached
    13
    14
                                            return 0;
    15 }
  17
```

```
CDT Build Console [CPE4010_lab0]
21:32:19 **** Build of configuration Debug for project CPE4010_lab0 ****
make -j8 all
Building file: ../startup/sysmem.c
Building file: ../startup/startup_stm32.s
Building file: ../src/main.c
Invoking: MCU GCC Compiler
Invoking: MCU GCC Assembler
Invoking: MCU GCC Compiler
C:\Users\mc2di\CPE4010\CPE4010_lab0\Debug
arm-none-eabi-gcc -mcpu=cortex-m4 -mthumb -mfloat-abi=hard -mfpu=fpv4-sp-d16 -DS
C:\Users\mc2di\CPE4010\CPE4010 lab0\Debug
C:\Users\mc2di\CPE4010\CPE4010_lab0\Debug
arm-none-eabi-as -mcpu=cortex-m4 -mthumb -mfloat-abi=hard -mfpu=fpv4-sp-d16 -g -
arm-none-eabi-gcc -mcpu=cortex-m4 -mthumb -mfloat-abi=hard -mfpu=fpv4-sp-d16 -DS
Finished building: ../startup/startup_stm32.s
Finished building: ../src/main.c
Finished building: ../startup/sysmem.c
Building target: CPE4010_lab0.elf
Invoking: MCU GCC Linker
arm-none-eabi-gcc -mcpu=cortex-m4 -mthumb -mfloat-abi=hard -mfpu=fpv4-sp-d16 -T"
Finished building target: CPE4010_lab0.elf
make --no-print-directory post-build
Generating binary and Printing size information:
arm-none-eabi-objcopy -O binary "CPE4010_lab0.elf" "CPE4010_lab0.bin"
arm-none-eabi-size "CPE4010_lab0.elf"
  text
          data
                 bss
                          dec
                                  hex filename
    952
          1088
                 1088
                         3128
                                   c38 CPE4010 lab0.elf
```

21:32:21 Build Finished (took 2s.401ms)

From procedure 7:

Insert your screenshot of the code and console

```
239 int main() { 24 int x = 0; // Define an integer named x and initialize it with 0
                                                                                                             14 int x = 0; // Define an integer named x and initialize it
25 // Loop until x reaches 180
26 // Loop until x reaches 180
27 // Loop until x reaches 180
28 // Loop until x reaches 180
29 // Loop until x reaches 180
20 // Loop until x reaches 180
21 // Return 0 to indicate successful execution
21 // Loop until x return 0 to indicate successful execution
22 // Loop until x return 0 to indicate successful execution
23 // Loop until x return 0 to indicate successful execution
24 // Loop until x reaches 180
25 // Loop until x reaches 180
26 // Loop until x reaches 180
27 // Loop until x reaches 180
28 // Loop until x reaches 180
29 // Loop until x reaches 180
20 // Loop until x reaches 180
21 // Loop until x reaches 180
22 // Loop until x reaches 180
23 // Loop until x reaches 180
24 // Loop until x reaches 180
25 // Loop until x reaches 180
26 // Loop until x reaches 180
27 // Loop until x reaches 180
28 // Loop until x reaches 180
29 // Loop until x reaches 180
20 // Loop until x
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Consider Continue Con
                                                                                                                 Building target: (PE4010_labe.elf
Invoking: PCU GCC Linker
Trevking: PC
                                                                                                                  make -no.print-directory post-build
Generating blancy and Printing its information:
arm-none-cabi-size "(FEGE01_abb.elf" "(FEGE01_abb.elf" "(FEGE01_abb.elf" "
text data bss dec het filmame
968 1088 1088 1144 cd6 (FEGE01_abb.elf"
                                                                                                                  21:40:01 Build Finished (took 1s.632ms)
i main.c □
     19 // Anindita Deb - Lab0 - 8/30/24
     20
        21 #include <stdio.h>
        22
      230 int main() {
                                                                            int x = 0; // Define an integer named x and initialize it with 0
        25
        26
                                                                            // Loop until x reaches 100
        27
                                                                             while (x < 100) {
        28
                                                                                                                 x++; // Increment the value of x by 1 in each iteration
          29
          30
        31
                                                                               return 0; // Return 0 to indicate successful execution
 32 }
   33
     34
```

```
Problems  a Tasks  Console  Properties
CDT Build Console [CPE4010_lab0]
21:40:00 **** Incremental CDT Build Console [CPE4010_lab0] yg for project CPE4010_lab0 ****
make -j8 all
Building file: ../src/main.c
Invoking: MCU GCC Compiler
C:\Users\mc2di\CPE4010\CPE4010_lab0\Debug
arm-none-eabi-gcc -mcpu=cortex-m4 -mthumb -mfloat-abi=hard -mfpu=fpv4-sp-d16 -DSTM32 -D
Finished building: ../src/main.c
Building target: CPE4010_lab0.elf
Invoking: MCU GCC Linker
arm-none-eabi-gcc -mcpu=cortex-m4 -mthumb -mfloat-abi=hard -mfpu=fpv4-sp-d16 -T"C:/User
Finished building target: CPE4010_lab0.elf
make --no-print-directory post-build
Generating binary and Printing size information:
arm-none-eabi-objcopy -O binary "CPE4010_lab0.elf" "CPE4010_lab0.bin"
arm-none-eabi-size "CPE4010_lab0.elf"
   text data bss dec hex filename
         1088 1088 3144 c48 CPE4010 lab0.elf
```

21:40:01 Build Finished (took 1s.632ms)

Also, from procedure 10:

Insert your screenshot of the code and console

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| Compared to the control of the con
```

```
i main.c ≅
 35
 36 // Anindita Deb - Lab0 - 8/30/24
 37
 38 #include <stdio.h>
 39
 40 // Function to create a delay
 41 void delay(int multiplier) {
        for (int i = 0; i < multiplier * 1000; i++) {</pre>
 42
 43
            //empty loop
 44
 45 }
 46
 47⊖ int main() {
 48
        int x = 0; // Define integer x and initialize with 0
 50
        // Loop until x reaches 100
        while (x < 100) {
 51
            x++; // Increment the value of x by 1 in each iteration
 52
 53
            delay(1); // Call delay function with a multiplier of 1
 54
 55
 56
        return 0; // Return 0 to indicate successful execution
57 }
 58
CDT Build Console [CPE4010_lab0]
21:44:39 **** Incremental Build of configuration Debug for project CPE4010_lab0 ****
make -j8 all
Building file: ../src/main.c
Invoking: MCU GCC Compiler
C:\Users\mc2di\CPE4010\CPE4010 lab0\Debug
arm-none-eabi-gcc -mcpu=cortex-m4 -mthumb -mfloat-abi=hard -mfpu=fpv4-sp-d16 -DSTM32 -DSTM32
Finished building: ../src/main.c
Building target: CPE4010_lab0.elf
Invoking: MCU GCC Linker
arm-none-eabi-gcc -mcpu=cortex-m4 -mthumb -mfloat-abi=hard -mfpu=fpv4-sp-d16 -T"C:/Users/mc2
Finished building target: CPE4010_lab0.elf
make --no-print-directory post-build
Generating binary and Printing size information:
arm-none-eabi-objcopy -O binary "CPE4010_lab0.elf" "CPE4010_lab0.bin"
arm-none-eabi-size "CPE4010_lab0.elf"
   text
          data
                bss
                          dec
                                  hex filename
   1016
          1088
                  1088
                          3192
                                   c78 CPE4010_lab0.elf
21:44:41 Build Finished (took 1s.65ms)
```