# Static Call Graph for image .\Objects\demo-lcd.axf

#<CALLGRAPH># ARM Linker, 5060750: Last Updated: Thu Nov 22 10:23:42 2018

### Maximum Stack Usage = 44 bytes + Unknown(Functions without stacksize, Cycles, Untraceable Function Pointers)

### Call chain for Maximum Stack Depth:

\_\_rt\_entry\_main ⇒ main ⇒ taskTodo ⇒ upFunction ⇒ setLCDAddress ⇒ Delay

### Functions with no stack information

* [\_\_user\_initial\_stackheap](#2nusc19)

### Mutually Recursive functions

* [NMI\_Handler](#1mrcu09)   ⇒   [NMI\_Handler](#1mrcu09)
* [HardFault\_Handler](#46r0co2)   ⇒   [HardFault\_Handler](#46r0co2)
* [SVC\_Handler](#2lwamvv)   ⇒   [SVC\_Handler](#2lwamvv)

### [PendSV\_Handler](#111kx3o)   ⇒   [PendSV\_Handler](#111kx3o) Function Pointers

* + [ADC0\_IRQHandler](#3l18frh) from startup\_mkl25z4.o(.text) referenced from startup\_mkl25z4.o(RESET)
  + [CMP0\_IRQHandler](#206ipza) from startup\_mkl25z4.o(.text) referenced from startup\_mkl25z4.o(RESET)
  + [DAC0\_IRQHandler](#4k668n3) from startup\_mkl25z4.o(.text) referenced from startup\_mkl25z4.o(RESET)
  + [DMA0\_IRQHandler](#2zbgiuw) from startup\_mkl25z4.o(.text) referenced from startup\_mkl25z4.o(RESET)
  + [DMA1\_IRQHandler](#1egqt2p) from startup\_mkl25z4.o(.text) referenced from startup\_mkl25z4.o(RESET)
  + [DMA2\_IRQHandler](#3ygebqi) from startup\_mkl25z4.o(.text) referenced from startup\_mkl25z4.o(RESET)
  + [DMA3\_IRQHandler](#2dlolyb) from startup\_mkl25z4.o(.text) referenced from startup\_mkl25z4.o(RESET)
  + [DefaultISR](#sqyw64) from startup\_mkl25z4.o(.text) referenced from startup\_mkl25z4.o(.text)
  + [FTFA\_IRQHandler](#3cqmetx) from startup\_mkl25z4.o(.text) referenced from startup\_mkl25z4.o(RESET)
  + [HardFault\_Handler](#46r0co2) from startup\_mkl25z4.o(.text) referenced from startup\_mkl25z4.o(RESET)
  + [I2C0\_IRQHandler](#1rvwp1q) from startup\_mkl25z4.o(.text) referenced from startup\_mkl25z4.o(RESET)
  + [I2C1\_IRQHandler](#4bvk7pj) from startup\_mkl25z4.o(.text) referenced from startup\_mkl25z4.o(RESET)
  + [LLWU\_IRQHandler](#2r0uhxc) from startup\_mkl25z4.o(.text) referenced from startup\_mkl25z4.o(RESET)
  + [LPTMR0\_IRQHandler](#1664s55) from startup\_mkl25z4.o(.text) referenced from startup\_mkl25z4.o(RESET)
  + [LVD\_LVW\_IRQHandler](#3q5sasy) from startup\_mkl25z4.o(.text) referenced from startup\_mkl25z4.o(RESET)
  + [MCG\_IRQHandler](#25b2l0r) from startup\_mkl25z4.o(.text) referenced from startup\_mkl25z4.o(RESET)
  + [NMI\_Handler](#1mrcu09) from startup\_mkl25z4.o(.text) referenced from startup\_mkl25z4.o(RESET)
  + [PIT\_IRQHandler](#zu0gcz) from pit.o(i.PIT\_IRQHandler) referenced from startup\_mkl25z4.o(RESET)
  + [PORTA\_IRQHandler](#kgcv8k) from startup\_mkl25z4.o(.text) referenced from startup\_mkl25z4.o(RESET)
  + [PORTD\_IRQHandler](#34g0dwd) from startup\_mkl25z4.o(.text) referenced from startup\_mkl25z4.o(RESET)
  + [PendSV\_Handler](#111kx3o) from startup\_mkl25z4.o(.text) referenced from startup\_mkl25z4.o(RESET)
  + [RTC\_IRQHandler](#1jlao46) from startup\_mkl25z4.o(.text) referenced from startup\_mkl25z4.o(RESET)
  + [RTC\_Seconds\_IRQHandler](#43ky6rz) from startup\_mkl25z4.o(.text) referenced from startup\_mkl25z4.o(RESET)
  + [Reserved20\_IRQHandler](#2iq8gzs) from startup\_mkl25z4.o(.text) referenced from startup\_mkl25z4.o(RESET)
  + [Reserved39\_IRQHandler](#xvir7l) from startup\_mkl25z4.o(.text) referenced from startup\_mkl25z4.o(RESET)
  + [Reserved45\_IRQHandler](#3hv69ve) from startup\_mkl25z4.o(.text) referenced from startup\_mkl25z4.o(RESET)
  + [Reset\_Handler](#37m2jsg) from startup\_mkl25z4.o(.text) referenced from startup\_mkl25z4.o(RESET)
  + [SPI0\_IRQHandler](#1x0gk37) from startup\_mkl25z4.o(.text) referenced from startup\_mkl25z4.o(RESET)
  + [SPI1\_IRQHandler](#4h042r0) from startup\_mkl25z4.o(.text) referenced from startup\_mkl25z4.o(RESET)
  + [SVC\_Handler](#2lwamvv) from startup\_mkl25z4.o(.text) referenced from startup\_mkl25z4.o(RESET)
  + [SysTick\_Handler](#3jtnz0s) from systick.o(i.SysTick\_Handler) referenced from startup\_mkl25z4.o(RESET)
  + [SystemInit](#1yyy98l) from system\_mkl25z4.o(i.SystemInit) referenced from startup\_mkl25z4.o(.text)
  + [TPM0\_IRQHandler](#2w5ecyt) from startup\_mkl25z4.o(.text) referenced from startup\_mkl25z4.o(RESET)
  + [TPM1\_IRQHandler](#1baon6m) from startup\_mkl25z4.o(.text) referenced from startup\_mkl25z4.o(RESET)
  + [TPM2\_IRQHandler](#3vac5uf) from startup\_mkl25z4.o(.text) referenced from startup\_mkl25z4.o(RESET)
  + [TSI0\_IRQHandler](#2afmg28) from startup\_mkl25z4.o(.text) referenced from startup\_mkl25z4.o(RESET)
  + [UART0\_IRQHandler](#pkwqa1) from startup\_mkl25z4.o(.text) referenced from startup\_mkl25z4.o(RESET)
  + [UART1\_IRQHandler](#39kk8xu) from startup\_mkl25z4.o(.text) referenced from startup\_mkl25z4.o(RESET)
  + [UART2\_IRQHandler](#1opuj5n) from startup\_mkl25z4.o(.text) referenced from startup\_mkl25z4.o(RESET)
  + [USB0\_IRQHandler](#48pi1tg) from startup\_mkl25z4.o(.text) referenced from startup\_mkl25z4.o(RESET)
  + [\_\_main](#gjdgxs) from \_\_main.o(!!!main) referenced from startup\_mkl25z4.o(.text)

Global Symbols**\_\_main** (Thumb, 8 bytes, Stack size 0 bytes, \_\_main.o(!!!main))  
  
[Calls]

* + [>>](#41mghml)   \_\_rt\_entry
  + [>>](#30j0zll)   \_\_scatterload

**\_\_scatterload** (Thumb, 0 bytes, Stack size unknown bytes, \_\_scatter.o(!!!scatter))  
  
[Called By]

* + [>>](#gjdgxs)   \_\_main

**\_\_scatterload\_rt2** (Thumb, 52 bytes, Stack size unknown bytes, \_\_scatter.o(!!!scatter), UNUSED)  
  
[Calls]

* + [>>](#41mghml)   \_\_rt\_entry

**\_\_scatterload\_rt2\_thumb\_only** (Thumb, 0 bytes, Stack size unknown bytes, \_\_scatter.o(!!!scatter), UNUSED)**\_\_scatterload\_null** (Thumb, 0 bytes, Stack size unknown bytes, \_\_scatter.o(!!!scatter), UNUSED)**\_\_scatterload\_copy** (Thumb, 26 bytes, Stack size unknown bytes, \_\_scatter\_copy.o(!!handler\_copy), UNUSED)  
  
[Calls]

* + [>>](#tyjcwt)   \_\_scatterload\_copy

[Called By]

* + [>>](#tyjcwt)   \_\_scatterload\_copy

**\_\_scatterload\_zeroinit** (Thumb, 28 bytes, Stack size unknown bytes, \_\_scatter\_zi.o(!!handler\_zi), UNUSED)**\_\_rt\_lib\_init** (Thumb, 0 bytes, Stack size unknown bytes, libinit.o(.ARM.Collect$$libinit$$00000000))  
  
[Called By]

* + [>>](#3fwokq0)   \_\_rt\_entry\_li

**\_\_rt\_lib\_init\_alloca\_1** (Thumb, 0 bytes, Stack size unknown bytes, libinit2.o(.ARM.Collect$$libinit$$0000002E))**\_\_rt\_lib\_init\_argv\_1** (Thumb, 0 bytes, Stack size unknown bytes, libinit2.o(.ARM.Collect$$libinit$$0000002C))**\_\_rt\_lib\_init\_atexit\_1** (Thumb, 0 bytes, Stack size unknown bytes, libinit2.o(.ARM.Collect$$libinit$$0000001B))**\_\_rt\_lib\_init\_clock\_1** (Thumb, 0 bytes, Stack size unknown bytes, libinit2.o(.ARM.Collect$$libinit$$00000021))**\_\_rt\_lib\_init\_cpp\_1** (Thumb, 0 bytes, Stack size unknown bytes, libinit2.o(.ARM.Collect$$libinit$$00000032))**\_\_rt\_lib\_init\_exceptions\_1** (Thumb, 0 bytes, Stack size unknown bytes, libinit2.o(.ARM.Collect$$libinit$$00000030))**\_\_rt\_lib\_init\_fp\_1** (Thumb, 0 bytes, Stack size unknown bytes, libinit2.o(.ARM.Collect$$libinit$$00000002))**\_\_rt\_lib\_init\_fp\_trap\_1** (Thumb, 0 bytes, Stack size unknown bytes, libinit2.o(.ARM.Collect$$libinit$$0000001F))**\_\_rt\_lib\_init\_getenv\_1** (Thumb, 0 bytes, Stack size unknown bytes, libinit2.o(.ARM.Collect$$libinit$$00000023))**\_\_rt\_lib\_init\_heap\_1** (Thumb, 0 bytes, Stack size unknown bytes, libinit2.o(.ARM.Collect$$libinit$$0000000A))**\_\_rt\_lib\_init\_lc\_collate\_1** (Thumb, 0 bytes, Stack size unknown bytes, libinit2.o(.ARM.Collect$$libinit$$00000011))**\_\_rt\_lib\_init\_lc\_ctype\_1** (Thumb, 0 bytes, Stack size unknown bytes, libinit2.o(.ARM.Collect$$libinit$$00000013))**\_\_rt\_lib\_init\_lc\_monetary\_1** (Thumb, 0 bytes, Stack size unknown bytes, libinit2.o(.ARM.Collect$$libinit$$00000015))**\_\_rt\_lib\_init\_lc\_numeric\_1** (Thumb, 0 bytes, Stack size unknown bytes, libinit2.o(.ARM.Collect$$libinit$$00000017))**\_\_rt\_lib\_init\_lc\_time\_1** (Thumb, 0 bytes, Stack size unknown bytes, libinit2.o(.ARM.Collect$$libinit$$00000019))**\_\_rt\_lib\_init\_preinit\_1** (Thumb, 0 bytes, Stack size unknown bytes, libinit2.o(.ARM.Collect$$libinit$$00000004))**\_\_rt\_lib\_init\_rand\_1** (Thumb, 0 bytes, Stack size unknown bytes, libinit2.o(.ARM.Collect$$libinit$$0000000E))**\_\_rt\_lib\_init\_return** (Thumb, 0 bytes, Stack size unknown bytes, libinit2.o(.ARM.Collect$$libinit$$00000033))**\_\_rt\_lib\_init\_signal\_1** (Thumb, 0 bytes, Stack size unknown bytes, libinit2.o(.ARM.Collect$$libinit$$0000001D))**\_\_rt\_lib\_init\_stdio\_1** (Thumb, 0 bytes, Stack size unknown bytes, libinit2.o(.ARM.Collect$$libinit$$00000025))**\_\_rt\_lib\_init\_user\_alloc\_1** (Thumb, 0 bytes, Stack size unknown bytes, libinit2.o(.ARM.Collect$$libinit$$0000000C))**\_\_rt\_lib\_shutdown** (Thumb, 0 bytes, Stack size unknown bytes, libshutdown.o(.ARM.Collect$$libshutdown$$00000000))  
  
[Called By]

* + [>>](#3tbugp1)   \_\_rt\_exit\_ls

**\_\_rt\_lib\_shutdown\_cpp\_1** (Thumb, 0 bytes, Stack size unknown bytes, libshutdown2.o(.ARM.Collect$$libshutdown$$00000002))**\_\_rt\_lib\_shutdown\_fp\_trap\_1** (Thumb, 0 bytes, Stack size unknown bytes, libshutdown2.o(.ARM.Collect$$libshutdown$$00000007))**\_\_rt\_lib\_shutdown\_heap\_1** (Thumb, 0 bytes, Stack size unknown bytes, libshutdown2.o(.ARM.Collect$$libshutdown$$0000000F))**\_\_rt\_lib\_shutdown\_return** (Thumb, 0 bytes, Stack size unknown bytes, libshutdown2.o(.ARM.Collect$$libshutdown$$00000010))**\_\_rt\_lib\_shutdown\_signal\_1** (Thumb, 0 bytes, Stack size unknown bytes, libshutdown2.o(.ARM.Collect$$libshutdown$$0000000A))**\_\_rt\_lib\_shutdown\_stdio\_1** (Thumb, 0 bytes, Stack size unknown bytes, libshutdown2.o(.ARM.Collect$$libshutdown$$00000004))**\_\_rt\_lib\_shutdown\_user\_alloc\_1** (Thumb, 0 bytes, Stack size unknown bytes, libshutdown2.o(.ARM.Collect$$libshutdown$$0000000C))**\_\_rt\_entry** (Thumb, 0 bytes, Stack size unknown bytes, \_\_rtentry.o(.ARM.Collect$$rtentry$$00000000))  
  
[Called By]

* + [>>](#gjdgxs)   \_\_main
  + [>>](#1fob9te)   \_\_scatterload\_rt2

**\_\_rt\_entry\_presh\_1** (Thumb, 0 bytes, Stack size unknown bytes, \_\_rtentry2.o(.ARM.Collect$$rtentry$$00000002))**\_\_rt\_entry\_sh** (Thumb, 0 bytes, Stack size unknown bytes, \_\_rtentry4.o(.ARM.Collect$$rtentry$$00000004))  
  
[Stack]

* + Max Depth = 8 + Unknown Stack Size
  + Call Chain = \_\_rt\_entry\_sh ⇒ \_\_user\_setup\_stackheap

[Calls]

* + [>>](#2fk6b3p)   \_\_user\_setup\_stackheap

**\_\_rt\_entry\_li** (Thumb, 0 bytes, Stack size unknown bytes, \_\_rtentry2.o(.ARM.Collect$$rtentry$$0000000A))  
  
[Calls]

* + [>>](#1t3h5sf)   \_\_rt\_lib\_init

**\_\_rt\_entry\_postsh\_1** (Thumb, 0 bytes, Stack size unknown bytes, \_\_rtentry2.o(.ARM.Collect$$rtentry$$00000009))**\_\_rt\_entry\_main** (Thumb, 0 bytes, Stack size unknown bytes, \_\_rtentry2.o(.ARM.Collect$$rtentry$$0000000D))  
  
[Stack]

* + Max Depth = 44 + Unknown Stack Size
  + Call Chain = \_\_rt\_entry\_main ⇒ main ⇒ taskTodo ⇒ upFunction ⇒ setLCDAddress ⇒ Delay

[Calls]

* + [>>](#upglbi)   exit
  + [>>](#j8sehv)   main

**\_\_rt\_entry\_postli\_1** (Thumb, 0 bytes, Stack size unknown bytes, \_\_rtentry2.o(.ARM.Collect$$rtentry$$0000000C))**\_\_rt\_exit** (Thumb, 0 bytes, Stack size unknown bytes, rtexit.o(.ARM.Collect$$rtexit$$00000000))  
  
[Called By]

* + [>>](#upglbi)   exit

**\_\_rt\_exit\_ls** (Thumb, 0 bytes, Stack size unknown bytes, rtexit2.o(.ARM.Collect$$rtexit$$00000003))  
  
[Calls]

* + [>>](#49x2ik5)   \_\_rt\_lib\_shutdown

**\_\_rt\_exit\_prels\_1** (Thumb, 0 bytes, Stack size unknown bytes, rtexit2.o(.ARM.Collect$$rtexit$$00000002))**\_\_rt\_exit\_exit** (Thumb, 0 bytes, Stack size unknown bytes, rtexit2.o(.ARM.Collect$$rtexit$$00000004))  
  
[Calls]

* + [>>](#2szc72q)   \_sys\_exit

**Reset\_Handler** (Thumb, 12 bytes, Stack size 0 bytes, startup\_mkl25z4.o(.text))**NMI\_Handler** (Thumb, 2 bytes, Stack size 0 bytes, startup\_mkl25z4.o(.text))  
  
[Calls]

* + [>>](#1mrcu09)   NMI\_Handler

[Called By]

* + [>>](#1mrcu09)   NMI\_Handler

[Address Reference Count : 1]

* + startup\_mkl25z4.o(RESET)

**HardFault\_Handler** (Thumb, 2 bytes, Stack size 0 bytes, startup\_mkl25z4.o(.text))  
  
[Calls]

* + [>>](#46r0co2)   HardFault\_Handler

[Called By]

* + [>>](#46r0co2)   HardFault\_Handler

[Address Reference Count : 1]

* + startup\_mkl25z4.o(RESET)

**SVC\_Handler** (Thumb, 2 bytes, Stack size 0 bytes, startup\_mkl25z4.o(.text))  
  
[Calls]

* + [>>](#2lwamvv)   SVC\_Handler

[Called By]

* + [>>](#2lwamvv)   SVC\_Handler

[Address Reference Count : 1]

* + startup\_mkl25z4.o(RESET)

**PendSV\_Handler** (Thumb, 2 bytes, Stack size 0 bytes, startup\_mkl25z4.o(.text))  
  
[Calls]

* + [>>](#111kx3o)   PendSV\_Handler

[Called By]

* + [>>](#111kx3o)   PendSV\_Handler

[Address Reference Count : 1]

* + startup\_mkl25z4.o(RESET)

**ADC0\_IRQHandler** (Thumb, 0 bytes, Stack size 0 bytes, startup\_mkl25z4.o(.text))  
[Address Reference Count : 1]

* + startup\_mkl25z4.o(RESET)

**CMP0\_IRQHandler** (Thumb, 0 bytes, Stack size 0 bytes, startup\_mkl25z4.o(.text))  
[Address Reference Count : 1]

* + startup\_mkl25z4.o(RESET)

**DAC0\_IRQHandler** (Thumb, 0 bytes, Stack size 0 bytes, startup\_mkl25z4.o(.text))  
[Address Reference Count : 1]

* + startup\_mkl25z4.o(RESET)

**DMA0\_IRQHandler** (Thumb, 0 bytes, Stack size 0 bytes, startup\_mkl25z4.o(.text))  
[Address Reference Count : 1]

* + startup\_mkl25z4.o(RESET)

**DMA1\_IRQHandler** (Thumb, 0 bytes, Stack size 0 bytes, startup\_mkl25z4.o(.text))  
[Address Reference Count : 1]

* + startup\_mkl25z4.o(RESET)

**DMA2\_IRQHandler** (Thumb, 0 bytes, Stack size 0 bytes, startup\_mkl25z4.o(.text))  
[Address Reference Count : 1]

* + startup\_mkl25z4.o(RESET)

**DMA3\_IRQHandler** (Thumb, 0 bytes, Stack size 0 bytes, startup\_mkl25z4.o(.text))  
[Address Reference Count : 1]

* + startup\_mkl25z4.o(RESET)

**DefaultISR** (Thumb, 0 bytes, Stack size 0 bytes, startup\_mkl25z4.o(.text))  
[Address Reference Count : 1]

* + startup\_mkl25z4.o(.text)

**FTFA\_IRQHandler** (Thumb, 0 bytes, Stack size 0 bytes, startup\_mkl25z4.o(.text))  
[Address Reference Count : 1]

* + startup\_mkl25z4.o(RESET)

**I2C0\_IRQHandler** (Thumb, 0 bytes, Stack size 0 bytes, startup\_mkl25z4.o(.text))  
[Address Reference Count : 1]

* + startup\_mkl25z4.o(RESET)

**I2C1\_IRQHandler** (Thumb, 0 bytes, Stack size 0 bytes, startup\_mkl25z4.o(.text))  
[Address Reference Count : 1]

* + startup\_mkl25z4.o(RESET)

**LLWU\_IRQHandler** (Thumb, 0 bytes, Stack size 0 bytes, startup\_mkl25z4.o(.text))  
[Address Reference Count : 1]

* + startup\_mkl25z4.o(RESET)

**LPTMR0\_IRQHandler** (Thumb, 0 bytes, Stack size 0 bytes, startup\_mkl25z4.o(.text))  
[Address Reference Count : 1]

* + startup\_mkl25z4.o(RESET)

**LVD\_LVW\_IRQHandler** (Thumb, 0 bytes, Stack size 0 bytes, startup\_mkl25z4.o(.text))  
[Address Reference Count : 1]

* + startup\_mkl25z4.o(RESET)

**MCG\_IRQHandler** (Thumb, 0 bytes, Stack size 0 bytes, startup\_mkl25z4.o(.text))  
[Address Reference Count : 1]

* + startup\_mkl25z4.o(RESET)

**PORTA\_IRQHandler** (Thumb, 0 bytes, Stack size 0 bytes, startup\_mkl25z4.o(.text))  
[Address Reference Count : 1]

* + startup\_mkl25z4.o(RESET)

**PORTD\_IRQHandler** (Thumb, 0 bytes, Stack size 0 bytes, startup\_mkl25z4.o(.text))  
[Address Reference Count : 1]

* + startup\_mkl25z4.o(RESET)

**RTC\_IRQHandler** (Thumb, 0 bytes, Stack size 0 bytes, startup\_mkl25z4.o(.text))  
[Address Reference Count : 1]

* + startup\_mkl25z4.o(RESET)

**RTC\_Seconds\_IRQHandler** (Thumb, 0 bytes, Stack size 0 bytes, startup\_mkl25z4.o(.text))  
[Address Reference Count : 1]

* + startup\_mkl25z4.o(RESET)

**Reserved20\_IRQHandler** (Thumb, 0 bytes, Stack size 0 bytes, startup\_mkl25z4.o(.text))  
[Address Reference Count : 1]

* + startup\_mkl25z4.o(RESET)

**Reserved39\_IRQHandler** (Thumb, 0 bytes, Stack size 0 bytes, startup\_mkl25z4.o(.text))  
[Address Reference Count : 1]

* + startup\_mkl25z4.o(RESET)

**Reserved45\_IRQHandler** (Thumb, 0 bytes, Stack size 0 bytes, startup\_mkl25z4.o(.text))  
[Address Reference Count : 1]

* + startup\_mkl25z4.o(RESET)

**SPI0\_IRQHandler** (Thumb, 0 bytes, Stack size 0 bytes, startup\_mkl25z4.o(.text))  
[Address Reference Count : 1]

* + startup\_mkl25z4.o(RESET)

**SPI1\_IRQHandler** (Thumb, 0 bytes, Stack size 0 bytes, startup\_mkl25z4.o(.text))  
[Address Reference Count : 1]

* + startup\_mkl25z4.o(RESET)

**TPM0\_IRQHandler** (Thumb, 0 bytes, Stack size 0 bytes, startup\_mkl25z4.o(.text))  
[Address Reference Count : 1]

* + startup\_mkl25z4.o(RESET)

**TPM1\_IRQHandler** (Thumb, 0 bytes, Stack size 0 bytes, startup\_mkl25z4.o(.text))  
[Address Reference Count : 1]

* + startup\_mkl25z4.o(RESET)

**TPM2\_IRQHandler** (Thumb, 0 bytes, Stack size 0 bytes, startup\_mkl25z4.o(.text))  
[Address Reference Count : 1]

* + startup\_mkl25z4.o(RESET)

**TSI0\_IRQHandler** (Thumb, 0 bytes, Stack size 0 bytes, startup\_mkl25z4.o(.text))  
[Address Reference Count : 1]

* + startup\_mkl25z4.o(RESET)

**UART0\_IRQHandler** (Thumb, 0 bytes, Stack size 0 bytes, startup\_mkl25z4.o(.text))  
[Address Reference Count : 1]

* + startup\_mkl25z4.o(RESET)

**UART1\_IRQHandler** (Thumb, 0 bytes, Stack size 0 bytes, startup\_mkl25z4.o(.text))  
[Address Reference Count : 1]

* + startup\_mkl25z4.o(RESET)

**UART2\_IRQHandler** (Thumb, 0 bytes, Stack size 0 bytes, startup\_mkl25z4.o(.text))  
[Address Reference Count : 1]

* + startup\_mkl25z4.o(RESET)

**USB0\_IRQHandler** (Thumb, 0 bytes, Stack size 0 bytes, startup\_mkl25z4.o(.text))  
[Address Reference Count : 1]

* + startup\_mkl25z4.o(RESET)

**\_\_user\_initial\_stackheap** (Thumb, 0 bytes, Stack size unknown bytes, startup\_mkl25z4.o(.text))  
  
[Called By]

* + [>>](#2fk6b3p)   \_\_user\_setup\_stackheap

**\_\_aeabi\_uidiv** (Thumb, 0 bytes, Stack size 0 bytes, aeabi\_sdiv.o(.text), UNUSED)**\_\_aeabi\_uidivmod** (Thumb, 20 bytes, Stack size 0 bytes, aeabi\_sdiv.o(.text))  
  
[Called By]

* + [>>](#1ljsd9k)   Init\_SysTick

**\_\_aeabi\_idiv** (Thumb, 0 bytes, Stack size 8 bytes, aeabi\_sdiv.o(.text), UNUSED)**\_\_aeabi\_idivmod** (Thumb, 326 bytes, Stack size 8 bytes, aeabi\_sdiv.o(.text), UNUSED)**\_\_use\_two\_region\_memory** (Thumb, 2 bytes, Stack size 0 bytes, heapauxi.o(.text), UNUSED)**\_\_rt\_heap\_escrow$2region** (Thumb, 2 bytes, Stack size 0 bytes, heapauxi.o(.text), UNUSED)**\_\_rt\_heap\_expand$2region** (Thumb, 2 bytes, Stack size 0 bytes, heapauxi.o(.text), UNUSED)**\_\_user\_setup\_stackheap** (Thumb, 62 bytes, Stack size 8 bytes, sys\_stackheap\_outer.o(.text))  
  
[Stack]

* + Max Depth = 8 + Unknown Stack Size
  + Call Chain = \_\_user\_setup\_stackheap

[Calls]

* + [>>](#1tuee74)   \_\_user\_perproc\_libspace
  + [>>](#2nusc19)   \_\_user\_initial\_stackheap

[Called By]

* + [>>](#vx1227)   \_\_rt\_entry\_sh

**exit** (Thumb, 16 bytes, Stack size 8 bytes, exit.o(.text))  
  
[Stack]

* + Max Depth = 8 + Unknown Stack Size
  + Call Chain = exit

[Calls]

* + [>>](#19c6y18)   \_\_rt\_exit
  + [>>](#1nia2ey)   \_call\_atexit\_fns (Weak Reference)

[Called By]

* + [>>](#4f1mdlm)   \_\_rt\_entry\_main

**\_\_user\_libspace** (Thumb, 8 bytes, Stack size 0 bytes, libspace.o(.text), UNUSED)**\_\_user\_perproc\_libspace** (Thumb, 0 bytes, Stack size 0 bytes, libspace.o(.text))  
  
[Called By]

* + [>>](#2fk6b3p)   \_\_user\_setup\_stackheap

**\_\_user\_perthread\_libspace** (Thumb, 0 bytes, Stack size 0 bytes, libspace.o(.text), UNUSED)**\_sys\_exit** (Thumb, 8 bytes, Stack size 0 bytes, sys\_exit.o(.text))  
  
[Called By]

* + [>>](#nmf14n)   \_\_rt\_exit\_exit

**\_\_I$use$semihosting** (Thumb, 0 bytes, Stack size 0 bytes, use\_no\_semi.o(.text), UNUSED)**\_\_use\_no\_semihosting\_swi** (Thumb, 2 bytes, Stack size 0 bytes, use\_no\_semi.o(.text), UNUSED)**Delay** (Thumb, 32 bytes, Stack size 8 bytes, lcd.o(i.Delay))  
  
[Stack]

* + Max Depth = 8
  + Call Chain = Delay

[Called By]

* + [>>](#3u2rp3q)   writeLCDString
  + [>>](#1a346fx)   writeLCDChar
  + [>>](#338fx5o)   setLCDAddress
  + [>>](#243i4a2)   lcdClear
  + [>>](#2pta16n)   initLCD
  + [>>](#3bj1y38)   cursorShift

**\_\_semihosting\_library\_function** (Thumb, 0 bytes, Stack size 8 bytes, indicate\_semi.o(.text), UNUSED)**Init\_ADC** (Thumb, 26 bytes, Stack size 0 bytes, adc.o(i.Init\_ADC))  
  
[Called By]

* + [>>](#j8sehv)   main

**Init\_SysTick** (Thumb, 68 bytes, Stack size 16 bytes, systick.o(i.Init\_SysTick))  
  
[Stack]

* + Max Depth = 24
  + Call Chain = Init\_SysTick ⇒ \_\_NVIC\_SetPriority

[Calls]

* + [>>](#3mzq4wv)   \_\_aeabi\_uidivmod
  + [>>](#2981zbj)   \_\_NVIC\_SetPriority

[Called By]

* + [>>](#j8sehv)   main

**ADC\_Cal** (Thumb, 174 bytes, Stack size 0 bytes, adc.o(i.ADC\_Cal))  
  
[Called By]

* + [>>](#j8sehv)   main

**MeasureVoltage** (Thumb, 30 bytes, Stack size 0 bytes, adc.o(i.MeasureVoltage))  
  
[Called By]

* + [>>](#3gnlt4p)   task2MeasureKeypad

**PIT\_IRQHandler** (Thumb, 50 bytes, Stack size 8 bytes, pit.o(i.PIT\_IRQHandler))  
  
[Stack]

* + Max Depth = 8
  + Call Chain = PIT\_IRQHandler

[Calls]

* + [>>](#odc9jc)   \_\_NVIC\_ClearPendingIRQ
  + [>>](#4iylrwe)   audioToggle

[Address Reference Count : 1]

* + startup\_mkl25z4.o(RESET)

**SysTick\_Handler** (Thumb, 20 bytes, Stack size 0 bytes, systick.o(i.SysTick\_Handler))  
[Address Reference Count : 1]

* + startup\_mkl25z4.o(RESET)

**SystemInit** (Thumb, 8 bytes, Stack size 0 bytes, system\_mkl25z4.o(i.SystemInit))  
[Address Reference Count : 1]

* + startup\_mkl25z4.o(.text)

**audioToggle** (Thumb, 8 bytes, Stack size 0 bytes, gpio.o(i.audioToggle))  
  
[Called By]

* + [>>](#zu0gcz)   PIT\_IRQHandler

**configureGPIOinput** (Thumb, 42 bytes, Stack size 0 bytes, gpio.o(i.configureGPIOinput))  
  
[Called By]

* + [>>](#j8sehv)   main

**configureGPIOoutput** (Thumb, 58 bytes, Stack size 0 bytes, gpio.o(i.configureGPIOoutput))  
  
[Called By]

* + [>>](#j8sehv)   main

**configureGPIOvolumeninput** (Thumb, 42 bytes, Stack size 0 bytes, gpio.o(i.configureGPIOvolumeninput))  
  
[Called By]

* + [>>](#j8sehv)   main

**configurePIT** (Thumb, 96 bytes, Stack size 8 bytes, pit.o(i.configurePIT))  
  
[Stack]

* + Max Depth = 16
  + Call Chain = configurePIT ⇒ \_\_NVIC\_SetPriority

[Calls]

* + [>>](#38czs75)   \_\_NVIC\_SetPriority
  + [>>](#odc9jc)   \_\_NVIC\_ClearPendingIRQ

[Called By]

* + [>>](#j8sehv)   main

**configureTPM0forPWM** (Thumb, 146 bytes, Stack size 0 bytes, tpm\_pwm.o(i.configureTPM0forPWM))  
  
[Called By]

* + [>>](#j8sehv)   main

**cursorShift** (Thumb, 44 bytes, Stack size 8 bytes, lcd.o(i.cursorShift))  
  
[Stack]

* + Max Depth = 16
  + Call Chain = cursorShift ⇒ Delay

[Calls]

* + [>>](#2hio093)   synByte
  + [>>](#279ka65)   Delay

[Called By]

* + [>>](#1vsw3ci)   taskTodo

**downFunction** (Thumb, 98 bytes, Stack size 8 bytes, main.o(i.downFunction))  
  
[Stack]

* + Max Depth = 28
  + Call Chain = downFunction ⇒ setLCDAddress ⇒ Delay

[Calls]

* + [>>](#1a346fx)   writeLCDChar
  + [>>](#338fx5o)   setLCDAddress

[Called By]

* + [>>](#1vsw3ci)   taskTodo

**finalDisplay** (Thumb, 32 bytes, Stack size 8 bytes, main.o(i.finalDisplay))  
  
[Stack]

* + Max Depth = 36
  + Call Chain = finalDisplay ⇒ writeLCDString ⇒ writeLCDChar ⇒ Delay

[Calls]

* + [>>](#3u2rp3q)   writeLCDString
  + [>>](#338fx5o)   setLCDAddress

[Called By]

* + [>>](#j8sehv)   main

**initLCD** (Thumb, 342 bytes, Stack size 4 bytes, lcd.o(i.initLCD))  
  
[Stack]

* + Max Depth = 12
  + Call Chain = initLCD ⇒ Delay

[Calls]

* + [>>](#2hio093)   synByte
  + [>>](#14ykbeg)   initNibble
  + [>>](#279ka65)   Delay

[Called By]

* + [>>](#j8sehv)   main

**initNibble** (Thumb, 56 bytes, Stack size 0 bytes, lcd.o(i.initNibble))  
  
[Called By]

* + [>>](#2pta16n)   initLCD

**initialState** (Thumb, 40 bytes, Stack size 8 bytes, main.o(i.initialState))  
  
[Stack]

* + Max Depth = 36
  + Call Chain = initialState ⇒ writeLCDString ⇒ writeLCDChar ⇒ Delay

[Calls]

* + [>>](#3u2rp3q)   writeLCDString
  + [>>](#338fx5o)   setLCDAddress

[Called By]

* + [>>](#j8sehv)   main

**lcdClear** (Thumb, 24 bytes, Stack size 8 bytes, lcd.o(i.lcdClear))  
  
[Stack]

* + Max Depth = 16
  + Call Chain = lcdClear ⇒ Delay

[Calls]

* + [>>](#2hio093)   synByte
  + [>>](#279ka65)   Delay

[Called By]

* + [>>](#j8sehv)   main

**main** (Thumb, 130 bytes, Stack size 8 bytes, main.o(i.main))  
  
[Stack]

* + Max Depth = 44
  + Call Chain = main ⇒ taskTodo ⇒ upFunction ⇒ setLCDAddress ⇒ Delay

[Calls]

* + [>>](#2uxtw84)   waitSysTickCounter
  + [>>](#42ddq1a)   startTimer
  + [>>](#1idq7dh)   setTimer
  + [>>](#rjefff)   configureTPM0forPWM
  + [>>](#2ce457m)   configurePIT
  + [>>](#3x8tuzt)   configureGPIOvolumeninput
  + [>>](#1d96cc0)   configureGPIOoutput
  + [>>](#2y3w247)   configureGPIOinput
  + [>>](#1ljsd9k)   Init\_SysTick
  + [>>](#36ei31r)   Init\_ADC
  + [>>](#45jfvxd)   ADC\_Cal
  + [>>](#1vsw3ci)   taskTodo
  + [>>](#3gnlt4p)   task2MeasureKeypad
  + [>>](#wnyagw)   task2ControlLCD
  + [>>](#3oy7u29)   initialState
  + [>>](#4anzqyu)   finalDisplay
  + [>>](#243i4a2)   lcdClear
  + [>>](#2pta16n)   initLCD

[Called By]

* + [>>](#4f1mdlm)   \_\_rt\_entry\_main

**setLCDAddress** (Thumb, 56 bytes, Stack size 12 bytes, lcd.o(i.setLCDAddress))  
  
[Stack]

* + Max Depth = 20
  + Call Chain = setLCDAddress ⇒ Delay

[Calls]

* + [>>](#2hio093)   synByte
  + [>>](#279ka65)   Delay

[Called By]

* + [>>](#4fsjm0b)   upFunction
  + [>>](#1vsw3ci)   taskTodo
  + [>>](#3oy7u29)   initialState
  + [>>](#4anzqyu)   finalDisplay
  + [>>](#1qoc8b1)   downFunction

**setTimer** (Thumb, 8 bytes, Stack size 0 bytes, pit.o(i.setTimer))  
  
[Called By]

* + [>>](#j8sehv)   main

**startTimer** (Thumb, 22 bytes, Stack size 0 bytes, pit.o(i.startTimer))  
  
[Called By]

* + [>>](#j8sehv)   main

**synByte** (Thumb, 314 bytes, Stack size 0 bytes, lcd.o(i.synByte))  
  
[Called By]

* + [>>](#1a346fx)   writeLCDChar
  + [>>](#338fx5o)   setLCDAddress
  + [>>](#243i4a2)   lcdClear
  + [>>](#2pta16n)   initLCD
  + [>>](#3bj1y38)   cursorShift

**task2ControlLCD** (Thumb, 158 bytes, Stack size 0 bytes, main.o(i.task2ControlLCD))  
  
[Called By]

* + [>>](#j8sehv)   main

**task2MeasureKeypad** (Thumb, 42 bytes, Stack size 8 bytes, main.o(i.task2MeasureKeypad))  
  
[Stack]

* + Max Depth = 8
  + Call Chain = task2MeasureKeypad

[Calls]

* + [>>](#2koq656)   MeasureVoltage

[Called By]

* + [>>](#j8sehv)   main

**taskTodo** (Thumb, 270 bytes, Stack size 8 bytes, main.o(i.taskTodo))  
  
[Stack]

* + Max Depth = 36
  + Call Chain = taskTodo ⇒ upFunction ⇒ setLCDAddress ⇒ Delay

[Calls]

* + [>>](#2uxtw84)   waitSysTickCounter
  + [>>](#4fsjm0b)   upFunction
  + [>>](#1qoc8b1)   downFunction
  + [>>](#338fx5o)   setLCDAddress
  + [>>](#3bj1y38)   cursorShift

[Called By]

* + [>>](#j8sehv)   main

**upFunction** (Thumb, 98 bytes, Stack size 8 bytes, main.o(i.upFunction))  
  
[Stack]

* + Max Depth = 28
  + Call Chain = upFunction ⇒ setLCDAddress ⇒ Delay

[Calls]

* + [>>](#1a346fx)   writeLCDChar
  + [>>](#338fx5o)   setLCDAddress

[Called By]

* + [>>](#1vsw3ci)   taskTodo

**waitSysTickCounter** (Thumb, 16 bytes, Stack size 0 bytes, systick.o(i.waitSysTickCounter))  
  
[Called By]

* + [>>](#1vsw3ci)   taskTodo
  + [>>](#j8sehv)   main

**writeLCDChar** (Thumb, 20 bytes, Stack size 8 bytes, lcd.o(i.writeLCDChar))  
  
[Stack]

* + Max Depth = 16
  + Call Chain = writeLCDChar ⇒ Delay

[Calls]

* + [>>](#2hio093)   synByte
  + [>>](#279ka65)   Delay

[Called By]

* + [>>](#4fsjm0b)   upFunction
  + [>>](#1qoc8b1)   downFunction
  + [>>](#3u2rp3q)   writeLCDString

**writeLCDString** (Thumb, 40 bytes, Stack size 12 bytes, lcd.o(i.writeLCDString))  
  
[Stack]

* + Max Depth = 28
  + Call Chain = writeLCDString ⇒ writeLCDChar ⇒ Delay

[Calls]

* + [>>](#1a346fx)   writeLCDChar
  + [>>](#279ka65)   Delay

[Called By]

* + [>>](#3oy7u29)   initialState
  + [>>](#4anzqyu)   finalDisplay

Local Symbols**\_\_NVIC\_SetPriority** (Thumb, 110 bytes, Stack size 8 bytes, systick.o(i.\_\_NVIC\_SetPriority))  
  
[Stack]

* + Max Depth = 8
  + Call Chain = \_\_NVIC\_SetPriority

[Called By]

* + [>>](#1ljsd9k)   Init\_SysTick

**\_\_NVIC\_ClearPendingIRQ** (Thumb, 18 bytes, Stack size 0 bytes, pit.o(i.\_\_NVIC\_ClearPendingIRQ))  
  
[Called By]

* + [>>](#zu0gcz)   PIT\_IRQHandler
  + [>>](#2ce457m)   configurePIT

**\_\_NVIC\_SetPriority** (Thumb, 110 bytes, Stack size 8 bytes, pit.o(i.\_\_NVIC\_SetPriority))  
  
[Stack]

* + Max Depth = 8
  + Call Chain = \_\_NVIC\_SetPriority

[Called By]

* + [>>](#2ce457m)   configurePIT

Undefined Global Symbols**\_call\_atexit\_fns** (ARM, 0 bytes, Stack size 0 bytes, UNDEFINED)  
  
[Called By]

* + [>>](#upglbi)   exit