SpartanMC

SpartanMC header files

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NAME

spartanmc-headers – SpartanMC header files for firmware development

DESCRIPTION

The various functions implemented in the SpartanMC C library (see *spartanmc-libs*) are defined in a number of header files located at **spartanmc/include/**. This path is part fo the standard include path of the SpartanMC-GCC. The following sections describe use and organization of the header files.

LIBRARY HEADER FILES

The following header files define general support functions and macros as well as support functions for access peripheral components:

bitmagic.h	Macros for bit manipulation such as set/clear/toggle bit at a certain memory location.
ddr.h	Support functions for the MCB (Memory Controller Block) in Xilinx devices (mcb_peri_interface). Requires *libperi*.
interrupt.h	Support functions for interrupt controller peripheral (intctrl, intctrl_p). Requires *libinterrupt* or *libinterrupt_p*.
led7.h	Support functions for a 7-Segment Display connected to the SFR_LEDS special function register of the processor core. Requires *libperi*.
mul_high.h	Support function to access the high order word (bits 19-36) of a multiplication.
sleep.h	Function to delay execution by a certain number of clock cycles.
stdint.h	Integer type definitions.
stdio.h	Standard input/output functions such as printf.
stdio_uart.h	Support functions to use UART with stdio functions.
stepper.h	Support functions for stepper motor peripheral (microstepper). Requires *libperi*.
string.h	String and memory operations.
uart.h	Support functions for UART peripherals (uart, uart_light). Requires *libperi*.
usb.h	Support functions for USB11 peripheral (usb11). Requires *libperi*.

GENERATED PROJECT HEADER FILES

To allow easy access to the hardware components of any generated system there are a number of header files generated by the system builder *jConfig*. For details, see **peripherals.h** and **hardware.h**.

FILES AND DIRECTORIES

spartanmc/include/	Header files for peripheral support functions
spartanmc/include/peripherals/	Header files defining structures and bit constants for peripheral register access

SEE ALSO

peripherals.h(3), **hardware.h**(3), *spartnmc-libs*(7)

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