

Qwiic Button Register Map

Byte Number	HEX	Register Name	Type	Read/Write	Power On Reset	Description
0	0x00	id	byte	Read Only	0x5D	Qwiic Button ID
1	0x01	firmware_LSB	byte	RW	0x0101	The current firmware version.
2	0x02	firmware_MSB				
3	0x03	Button Status	byte	RW	0x00	Bit 0 (eventAvailable) is set to 1 when a new event occurs user must write 0 to clear. Bit 1 (hasBeenClicked) defaults to 0 on POR, is set to one when the button is clicked, must be cleared by the user. Bit 2 (isPressed) is set to 1 when the button is pushed.
4	0x04	Interrupt Config	byte	RW	0x11 (User Settable)	Set bit 0 to 1 to enable an interrupt when the button is clicked. Set bit 1 to 1 to enable a button pressed interrupt
5	0x05	Button Debounce Time	uint16_t	RW	0x000A (User Settable)	The Button Debounce time in ms. Default is 10 ms
6	0x06					
7	0x07	Pressed Queue Status	byte	RO/RW	0x02	bit 0 is 1 if buffer is full, bit 1 is 1 if buffer is empty. Both are Read Only. Bit 2 is Read/Write and is the popRequest bit, user sets to 1 to pop from queue, then pops data from queue, then the user sets the bit back to 0
8	0x08	Pressed Queue Front	unsigned long	RO	0x00000000	Holds the timestamp of the newest press
9	0x09					
10	0x0A					
11	0x0B					
12	0x0C					
13	0x0D	Pressed Queue Back	unsigned long	RO	0x00000000	Holds the timestamp of the oldest press
14	0x0E					
15	0x0F					
16	0x10	Clicked Queue Status	byte	RO/RW	0x02	bit 0 is 1 if buffer is full, bit 1 is 1 if buffer is empty. Both are Read Only. Bit 2 is Read/Write and is the popRequest bit, user sets to 1 to pop from queue, then pops data from queue, then the user sets the bit back to 0
17	0x11	Clicked Queue Front	unsigned long	RO	0x00000000	Holds the timestamp of the newest click
18	0x12					
19	0x13					
20	0x14					
21	0x15					
22	0x16	Clicked Queue Back	unsigned long	RO	0x00000000	Holds the timestamp of the oldest click
23	0x17					
24	0x18					
25	0x19	LED Brightness	byte	RW	0x00	Stores the brightness of the LED as a value between 0 and 255
26	0x1A	LED Pulse Granularity	byte	RW	0x01	The amount of steps it takes to get to led brightness
27	0x1B	LED Pulse Cycle Time	uint16_t	RW	0x01F4	Total pulse cycle in ms, does not include off time, LED pulse disabled if 0
28	0x1C					
29	0x1D	LED Pulse Off Time	uint16_t	RW	0x01F4	Off Time between pulses in ms (Default is 500 ms)
30	0x1E					
31	0x1F	I2C Address	byte	R/W	NVM/User Set	I2C address can be changed, default is 0x6F

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