

Each interrupt has a specific enable bit in the Special Function Register. To find out how to enable a specific interrupt, refer to the complete datasheet for the ATmega128.

Once an interrupt is triggered, the current instruction address is saved to the stack and the program address is sent to that specific Interrupt Vector. An Interrupt Vector is a specific address in the program memory associated with the interrupt. There is general enough room at the Interrupt Vector to make a call to the interrupt function somewhere else in program memory and a return from interrupt instruction.

The following table is a list of all the Interrupt Vectors, as well as there addresses in program memory, and definitions.

**Table 4: Reset and Interrupt Vectors**

Vector No.	Program Address	Source	Interrupt Definition
1	\$0000	RESET	External Pin, Power-on Reset, Brown-out Reset, Watchdog Reset, and JTAG AVR Reset
2	\$0002	INT0	External Interrupt Request 0
3	\$0004	INT1	External Interrupt Request 1
4	\$0006	INT2	External Interrupt Request 2
5	\$0008	INT3	External Interrupt Request 3
6	\$000A	INT4	External Interrupt Request 4
7	\$000C	INT5	External Interrupt Request 5
8	\$000E	INT6	External Interrupt Request 6
9	\$0010	INT7	External Interrupt Request 7
10	\$0012	TIMER2 COMP	Timer/Counter2 Compare Match
11	\$0014	TIMER2 OVF	Timer/Counter2 Overflow
12	\$0016	TIMER1 CAPT	Timer/Counter1 Capture Event
13	\$0018	TIMER1 COMPA	Timer/Counter1 Compare Match A
14	\$001A	TIMER1 COMPB	Timer/Counter1 Compare Match B
15	\$001C	TIMER1 OVF	Timer/Counter1 Overflow
16	\$001E	TIMER0 COMP	Timer/Counter0 Compare Match
17	\$0020	TIMER0 OVF	Timer/Counter0 Overflow
18	\$0022	SPI, STC	SPI Serial Transfer Complete
19	\$0024	USART0, RX	UASRT0, Rx Complete
20	\$0026	USART0, UDRE	USART0 Data Register Empty
21	\$0028	USART0, TX	USART0, Tx Complete
22	\$002A	ADC	ADC Conversion Complete
23	\$002C	EE READY	EEPROM Ready
24	\$002E	ANALOG COMP	Analog Comparator
25	\$0030	TIMER1 COMPC	Timer/Counter1 Compare Match C
26	\$0032	TIMER3 CAPT	Timer/Counter3 Capture Event
27	\$0034	TIMER3 COMPA	Timer/Counter3 Compare Match A
28	\$0036	TIMER3 COMPB	Timer/Counter3 Compare Match B
29	\$0038	TIMER3 COMPC	Timer/Counter3 Compare Match C
30	\$003A	TIMER3 OVF	Timer/Counter3 Overflow
31	\$003C	USART1, RX	USART1, Rx Complete
32	\$003E	USART1, UDRE	USART1 Data Register Empty
33	\$0040	USART1, TX	USART1, Tx Complete
34	\$0042	TWI	Two-wire Serial Interface
35	\$0044	SPM READY	Store Program Memory Ready