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Proj\_5B\_Demo\_Clock\_B

## **INTRODUCES**

1. Resources subroutine I2C\_Tx\_8\_byte\_array() which sends an array of 8 askii characters (0 to 9) to the 8 digit display.

## 2. A basic clock mechanism

The timer T0 generates a one second tick that is used to increment the variable sec\_counter and also call the subroutine Display\_time().

Subroutine Display\_time()

Resets the sec\_counter after 12 hours (43200 seconds).

Converts the number of seconds to hours, minutes and seconds

Calls the timer\_unsigned to askii subroutine to covert hours, minutes and seconds to three 2 character strings.

Note: #define statements in the clock\_stop\_watch.h header file, map the labels HoursH and L, MinsH and L and SecsH and L to digits [2] to [7] so that the clock can be displayed using a I2C\_Tx\_8\_byte\_array() subrouutine.