

A time of day clock.

The EasyWeb2 board includes an LCD display that can be used to display the time of day.

The code below partially implements a simple time of day clock.

```
#include <msp430x14x.h>
#include "display.h"
void delay() {
    int dly;
    for (dly=0;dly<100;dly++);
}
void main( void )
{
    // Stop watchdog timer to prevent time out reset
    WDTCTL = WDTPW + WDTHOLD;
    initDisplay();
    clearDisplay();
    printString("Hello World");
    while(1) {
        // insert code here to periodically update the display and update global
        // variables that count seconds, minutes and hours.
        // Suggestion: update the display each time the number of seconds changes.
        // You will need to 'calibrate' the delay loop.
    }
}
```

Questions:

- 1) What code is needed to get an increasing count on the display?
- 2) How is the rate controlled?
- 3) Is there a limit to how slow it can go? Why is this and how can it be fixed?
- 4) Expand code so that it implements a time of day clock with seconds, minutes and hours