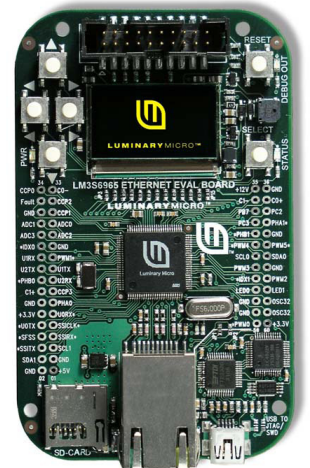Syddansk Universitet

Det Tekniske Fakultet

Lab 1:

Setup your Development Environment. (see note at BB).

Create your first project in CoIDE. (see note at BB).

Type the code from list 1 into your main.c.

Compile the code, connect the kit, download and run.

The on-board LED will now light up when you press the <SELECT> button.

Fig. 1: **Stellaris® LM3S6965 Evaluation Board**

```c
/*****************************************************************
* MODULENAME.: main.c
*****************************************************************/
#include "lm3s6965.h"

int main(void)
/*****************************************************************
*    Function : LED follows SWITCH
*****************************************************************/
{
  int dummy;

  // Enable the GPIO port that is used for the on-board LED.
  SYSCTL_RCGC2_R = SYSCTL_RCGC2_GPIOF;

  // Do a dummy read to insert a few cycles after enabling the peripheral.
  dummy = SYSCTL_RCGC2_R;

  // Set the direction as output (PF0).
  GPIO_PORTF_DIR_R = 0x01;

  // Enable the GPIO pins for digital function (PF0 and PF1).
  GPIO_PORTF_DEN_R = 0x03;

  // Enable internal pull-up (PF1).
  GPIO_PORTF_PUR_R = 0x02;

  // Loop forever.
  while(1)
  {
    if( !(GPIO_PORTF_DATA_R & 0x02 ))
    GPIO_PORTF_DATA_R &= ~(0x01);
      else
    GPIO_PORTF_DATA_R |= 0x01;
  }
  return( 0 );
}
/*************************** End Of Module ***************************/
```

List 1. Main.c

Congratulations, you have made your first program.

Enjoy,
Morten

Morten Hansen
moh@mmmi.sdu.dk