

# Laboration 1

## Task 1, Read the buttons and turn on the LED

- Write a function that initializes the pins that are connected to the buttons. (Make the port 19 and 20 as input)
- Write a function that initializes the pins that are connected to the LEDs. (Make the port 17 and 18 as output)
- Write a main that: when a button is pressed turn on one of the LEDs

## Task 2, Communicate to the PC

Create new workspace. Import the basic project from:

<http://www.hh.se/ide/utbildning/arstudent/kurshemsidor/datorsystemteknik1/hardvarudelen.5681.html>.

- Write a program that echoes back a character to the PC (hyper terminal). Use these functions.

```
void USART0Setup(char Ch)
void PutCharUsart0(char Ch)
char GetCharUsart0(void)
int Char_In_Usart0(void)
```

## Task 3, Wrapping

Connect more than 10 pins together for practices.

Information about wrapping can be found:

[http://www.cooperhandtools.com/EUROPE/sales\\_literature/documents/Wire\\_Wrap\\_Cat\\_GB.pdf](http://www.cooperhandtools.com/EUROPE/sales_literature/documents/Wire_Wrap_Cat_GB.pdf)