Lab2 How-to

1. Writing a function

To write a function, use

Datatype functionName (arguments) {

return something;

}

To call that function:

functionName();

1. Setting up and using GPIOs:

For GPIO52:

//PushButton for GPIO 52

GPIO\_SetupPinMux(52, GPIO\_MUX\_CPU1, 0);

GPIO\_SetupPinOptions(52, GPIO\_INPUT, GPIO\_PULLUP);

Checking for GPIO 52:

if (GpioDataRegs.GPBDAT.bit.GPIO52 == 0) {

//do whatever here

}

If actively driven: no changes on input mode, since there’s no functional difference for the pin

1. Is much easier to understand when changing individual bits since they’re named, and no need for a bitmask when reading and modifying bits.

to check

Use (GpioDataRegs.GPADAT.all & 0x1800)==0x1800

1. ADCSOC1CTL is a 32bit bitfield, the maximum value of elements depends on the number of bits reserved for it. The largest values are 2^9=512 for ACQPS, 2^4=16 for CHSEL, 2^5=32 for TRIGSEL.