

```

#include <stdlib.h>
#include <stdio.h>
#include "xutil.h"
#include "xparameters.h"
#include "xuartlite_1.h"

#define SG_adder_BASEADDR 0xFF000000
#define SG_adder_HIGHADDR 0xFF00FFFF
#define SG_adder_SIZE 0xFFFF
//Gateways In

#define SG_adder_Gateway_In (SG_adder_BASEADDR+0x0)
//tag name: in_0
//arith_type = Unsigned
//num_bits = 6
//bin_pt = 0
#define SG_adder_Gateway_In1 (SG_adder_BASEADDR+0x4)
//tag name: in_1
//arith_type = Unsigned
//num_bits = 6
//bin_pt = 0

//Gateways Out

#define SG_adder_Sum (SG_adder_BASEADDR+0x8)
//tag name: out_2

int main()
{
    while(1)
    {
        xil_printf("\n\rPlease input a one digit number as the first input to the adder: ");
        *((volatile unsigned int*) SG_adder_Gateway_In) = XUartLite_RecvByte(STDIN_BASEADDRESS) - 48;
        xil_printf("\n\raddend1: %d ", *((volatile unsigned int*) SG_adder_Gateway_In));

        xil_printf("\n\rPlease input a one digit number as the second input to the adder: ");
        *((volatile unsigned int*) SG_adder_Gateway_In1) = XUartLite_RecvByte(STDIN_BASEADDRESS) - 48;
        xil_printf("\n\raddend2: %d ", *((volatile unsigned int*) SG_adder_Gateway_In1));

        xil_printf("\n\rSum: %d ", *((volatile unsigned int*) SG_adder_Sum));
    }
    return 0;
}

```