

```

1  #include <stdlib.h>
2  #include <stdio.h>
3  #include "xutil.h"
4  #include "xparameters.h"
5  #include "xuartlite_1.h"
6
7  #define SG_adder_BASEADDR 0xFF000000
8  //Gateways In
9
10 #define SG_adder_Gateway_In (SG_adder_BASEADDR+0x0)
11 //tag name: in_0
12 //arith_type = Unsigned
13 //num_bits = 6
14 //bin_pt = 0
15 #define SG_adder_Gateway_In1 (SG_adder_BASEADDR+0x4)
16 //tag name: in_1
17 //arith_type = Unsigned
18 //num_bits = 6
19 //bin_pt = 0
20
21 //Gateways Out
22
23 #define SG_adder_Sum (SG_adder_BASEADDR+0x8)
24 //tag name: out_2
25
26 int main()
27 {
28     while(1)
29     {
30         xil_printf("\n\rPlease input a one digit number as the first input to the adder: ");
31         *((volatile unsigned int*) SG_adder_Gateway_In) = XUartLite_RecvByte(STDIN_BASEADDRESS) - 48;
32         xil_printf("\n\raddend1: %d ", *((volatile unsigned int*) SG_adder_Gateway_In));
33
34         xil_printf("\n\rPlease input a one digit number as the second input to the adder: ");
35         *((volatile unsigned int*) SG_adder_Gateway_In1) = XUartLite_RecvByte(STDIN_BASEADDRESS) - 48;
36         xil_printf("\n\raddend2: %d ", *((volatile unsigned int*) SG_adder_Gateway_In1));
37
38         xil_printf("\n\rSum: %d ", *((volatile unsigned int*) SG_adder_Sum));
39     }
40     return 0;
41 }

```