

Problem Statement:

S2	S1	S0	Output	Function
1	0	1	$A_i - 1$	Decrement A
0	1	1	$A_i + B_i$	Add
1	1	1	$A_i - B_i$	Subtract
0	0	1	A_i	Transfer A
1	X	0	$A_i \mid B_i$	OR
0	X	0	A_i'	Complement A