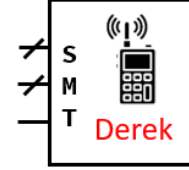
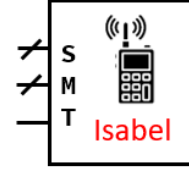
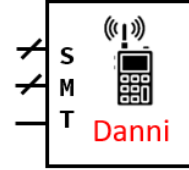
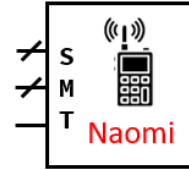


## (1) Walkie Talkie Base Station Design



(All S/M 16-bit)



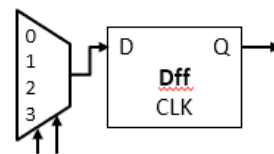
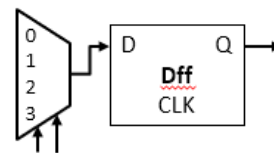
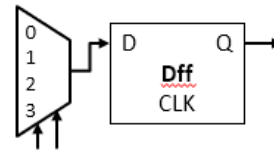
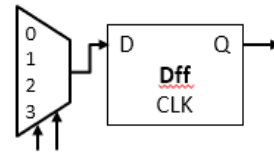
## (2) Complex Binary Counter



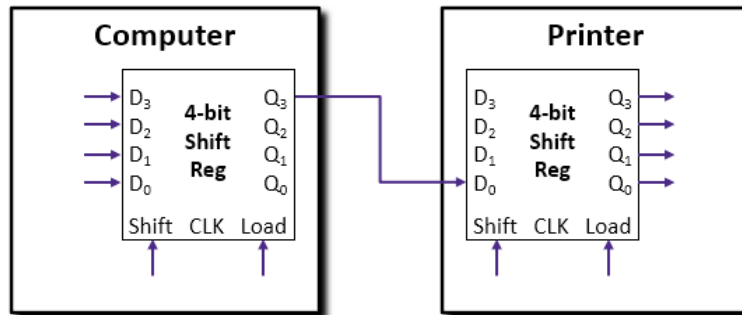
“Build me a 12-bit counter that can be paused, reset to 0, or reset to an arbitrary value!”

### (3) Shift Register Design

Load	Shift	Action
0	0	Q = old Q
0	1	Shift (left)
1	X	Parallel load



### (4) Parallel/Serial Conversion



Cycle	Shift	Load	Q0	Q1	Q2	Q3
0			X	X	X	X
1						
2						
3						
4						
5						
6						

Shift	Load	Q0	Q1	Q2	Q3
		X	X	X	X