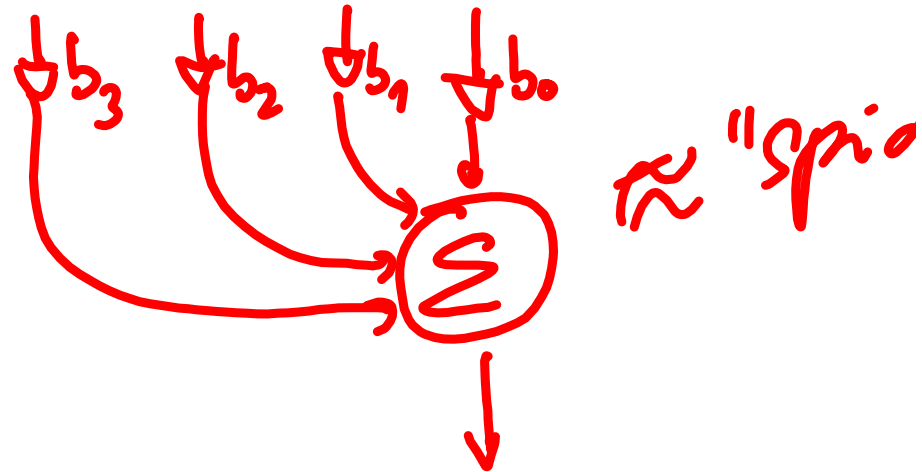


$$y[n] = b_0x[n] + b_1x[n-1] + b_2x[n-2] + b_3x[n-3]$$

$n$	-5	-4	-3	-2	-1	0	1	2	3	4	5	6
	0	0	0	0	0	1	0	0	0	0	0	0

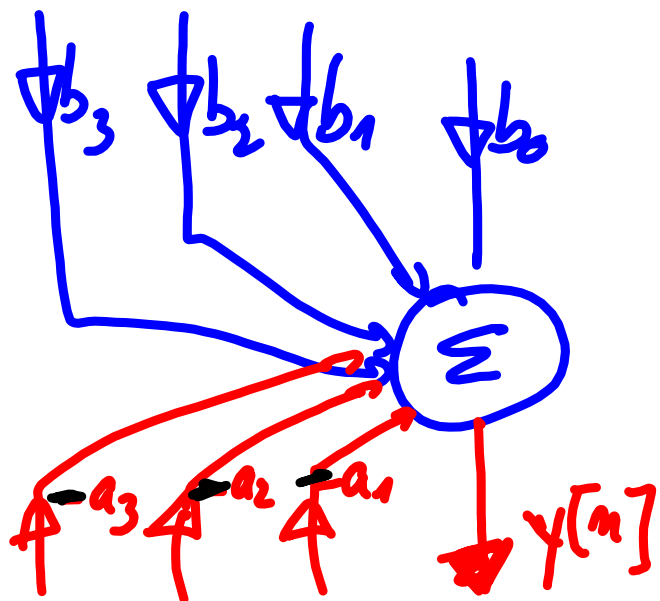
"unit pulse"  $\delta[n]$

finite ~~impulse response~~

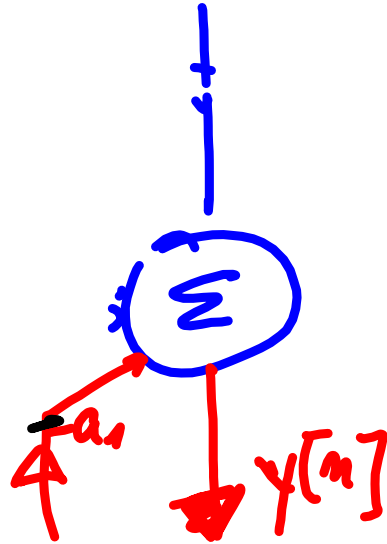


0	0	0	0	0	$b_0$	$b_1$	$b_2$	$b_3$	0	0	0
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$$b_i \quad i \in 0 \dots Q \leftarrow \text{order of filters}$$
$$h[n] = \begin{cases} b_i & \text{for } m \in 0 \dots Q \\ 0 & \text{else} \end{cases}$$



$n$	-2	-1	0	1	2	3	4	5	6	7	...
	0	0	1	0	0	0	0	0	0	0	0



0	0	0	1	$-a_1$	$(-a_1)^2$	$(-a_1)^3$	$(-a_1)^4$	-	...	-
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