810197491 CA1 - phase 1

هلیا حسن

1

$$\begin{array}{r} a_1\ a_0 \\ \times\ b_1\ b_0 \\ \hline C_3\ C_2\ C_1\ C_0 \end{array}$$

b_1b_0 \ a_1a_0	00	01	11	10
00	0	0	0	0
01	0	1	1	0
11	0	1	1	0
10	0	0	0	0

$C_0 = a_0 b_0$

b_1b_0 \ a_1a_0	00	01	11	10
00	0	0	0	0
01	0	0	1	1
11	0	1	0	1
10	0	1	1	0

$C_1 = \bar{a}_1 a_0 b_1 + a_1 \bar{a}_0 b_0 + a_0 b_1 \bar{b}_0 + a_1 b_0 \bar{b}_1$

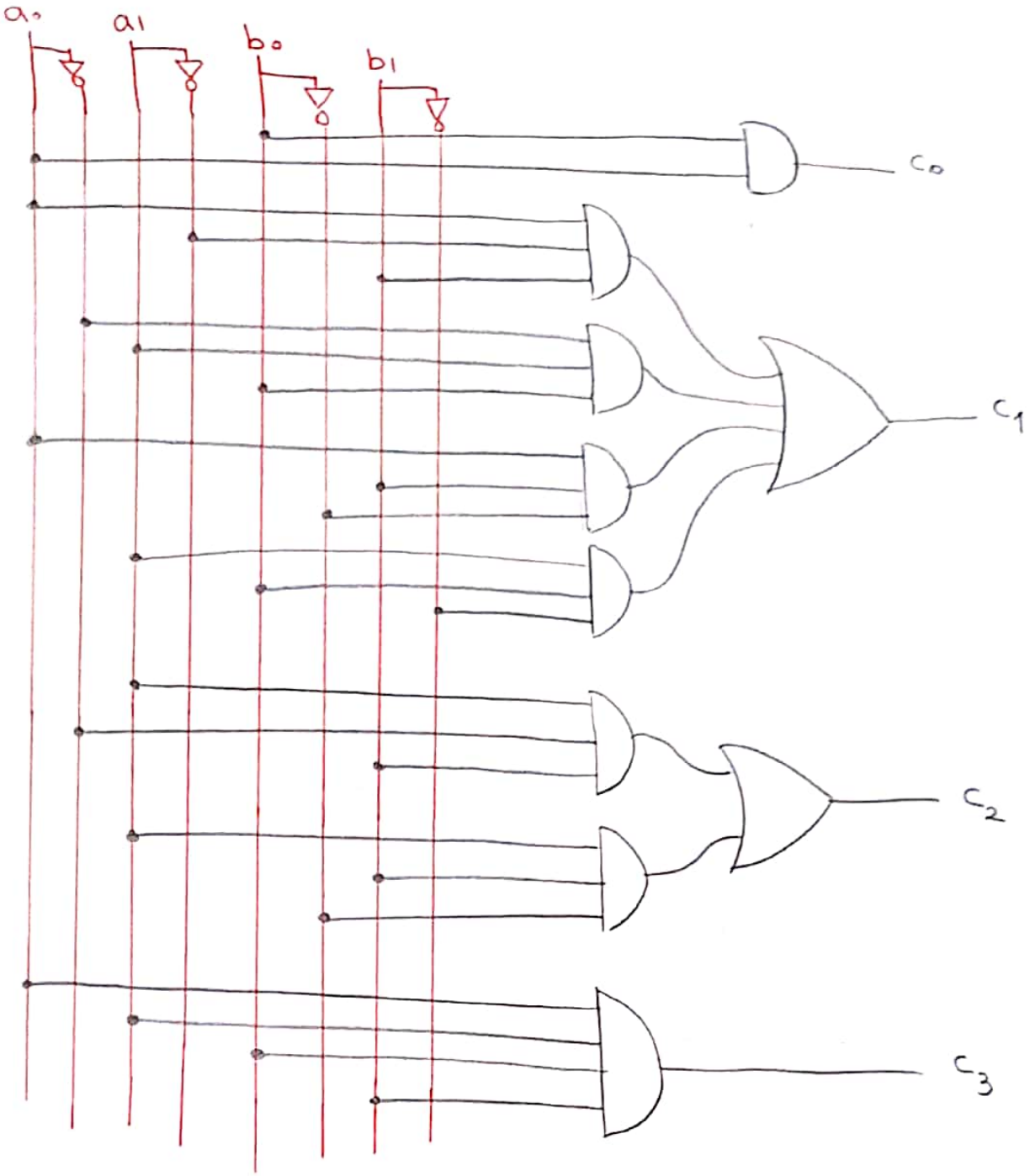
b_1b_0 \ a_1a_0	00	01	11	10
00	0	0	0	0
01	0	0	0	0
11	0	0	0	1
10	0	0	1	1

$C_2 = a_1 \bar{a}_0 b_1 + a_1 b_1 \bar{b}_0$

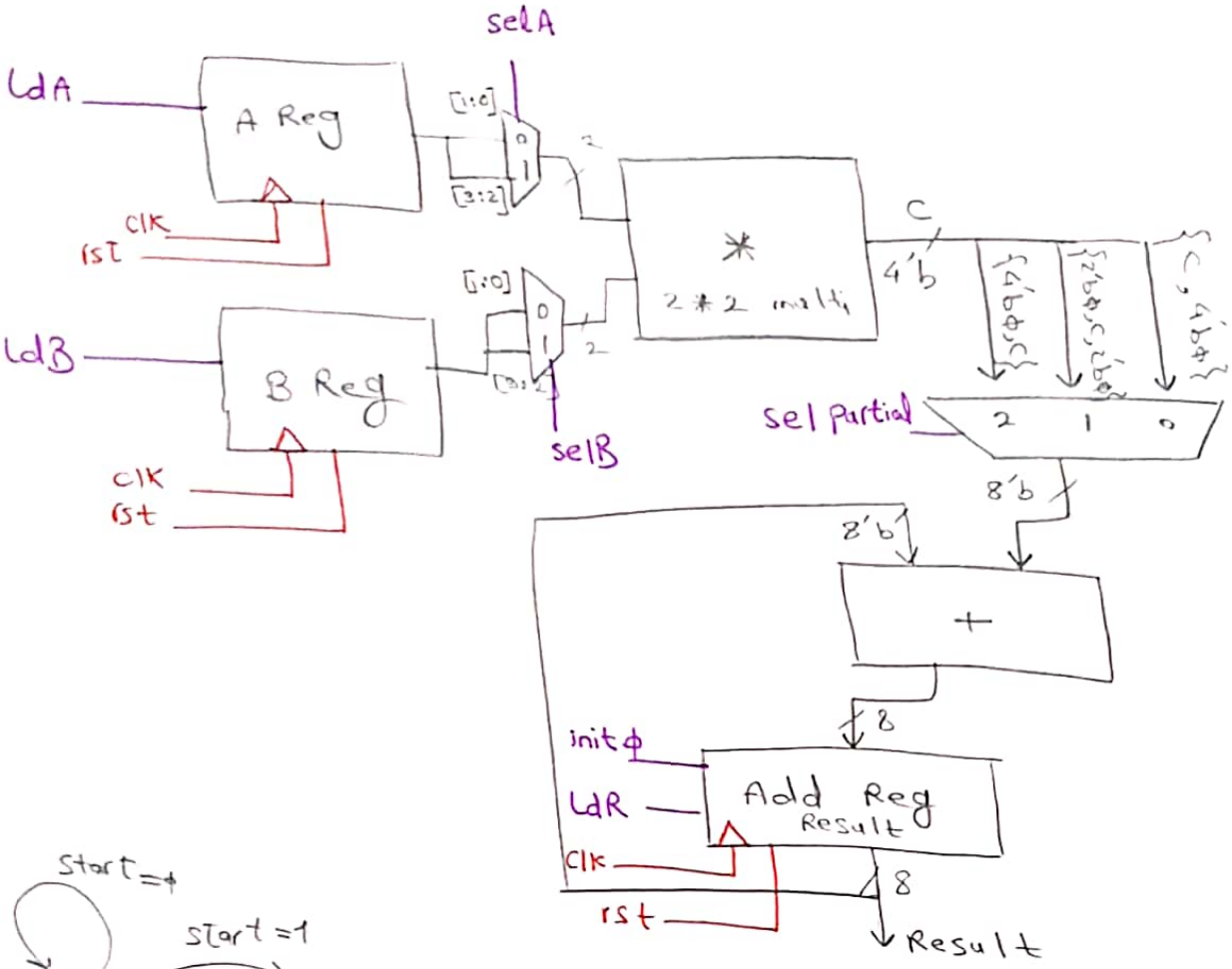
b_1b_0 \ a_1a_0	00	01	11	10
00	0	0	0	0
01	0	0	0	0
11	0	0	1	0
10	0	0	0	0

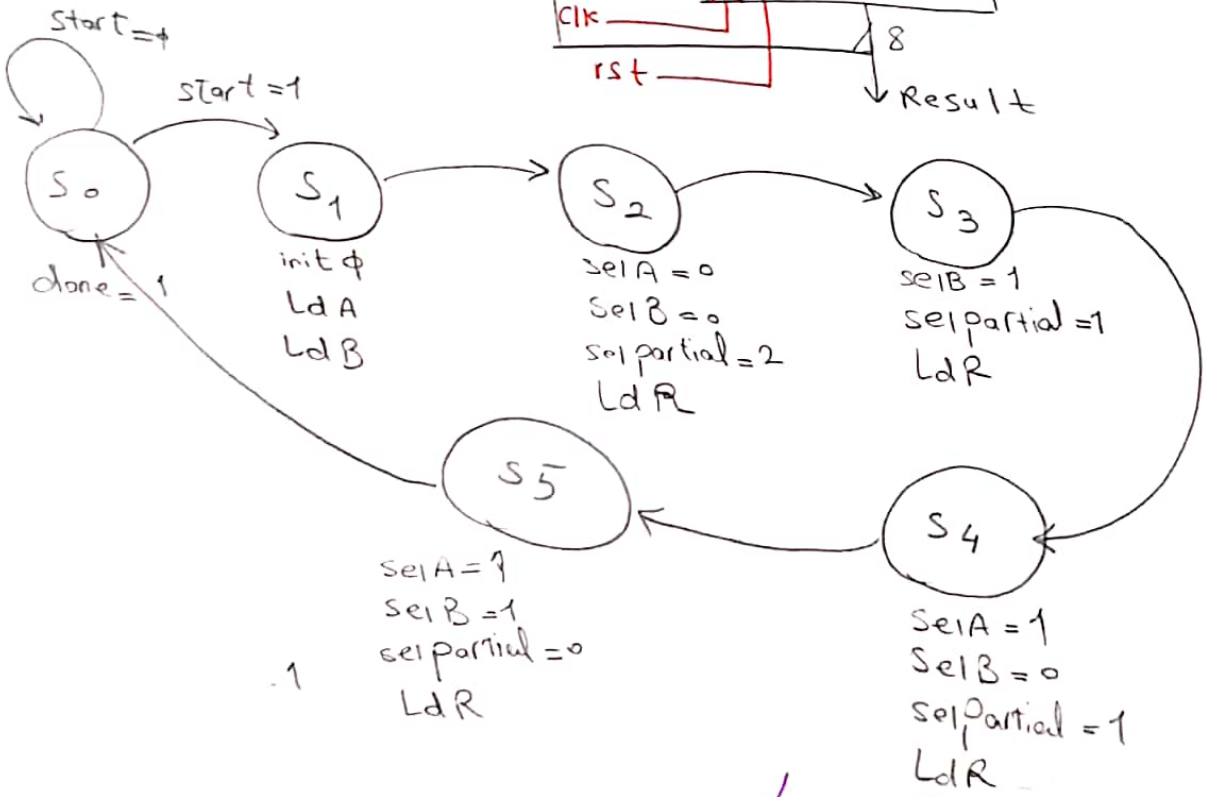
$C_3 = a_1 a_0 b_1 b_0$

شکل صفحه بعد



Scanned with CamScanner





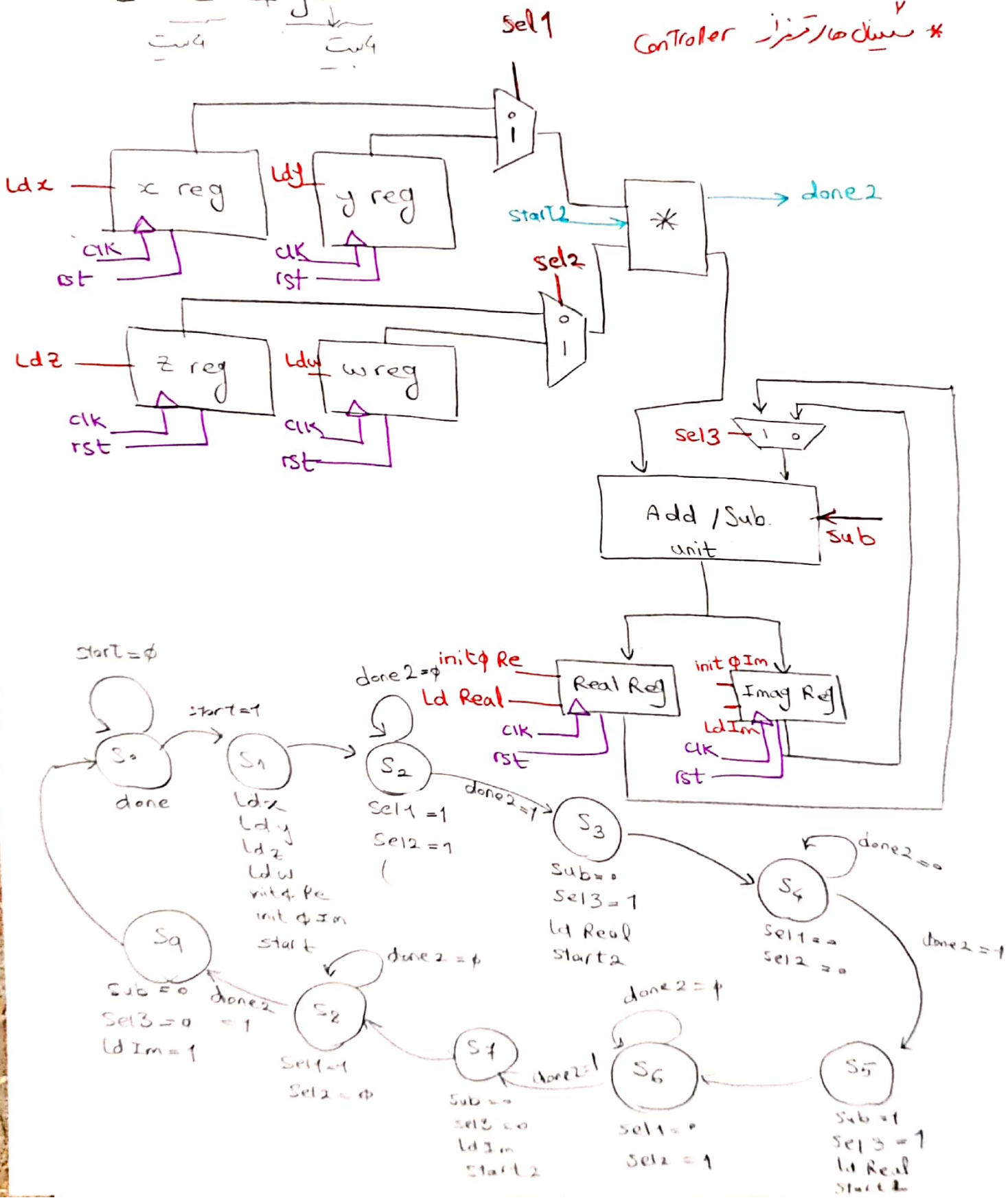
* سیگنال های نقش رنگ از سمت کنترل

$a = x + jy$

$b = z + jw$

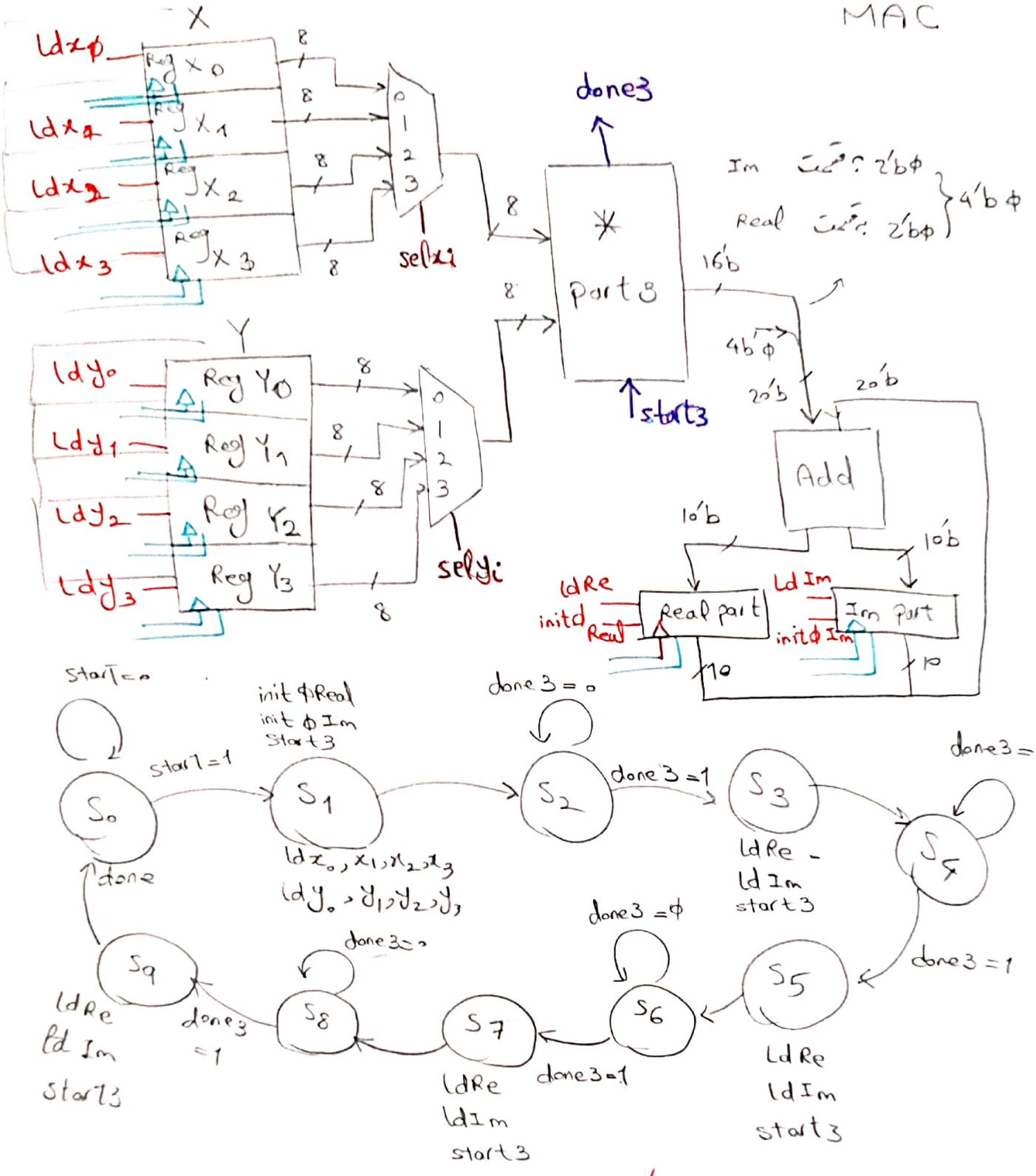
$a \times b = (xz - yw, xw + zy)$

* سیگنال‌های کنترلر Controller



Scanned with CamScanner

MAC



* سیگنال های زیگ‌زاگ سیگنال های کنترلی از سمت Controller هستند.