

	Present state	Next state		Outputs						
		$w = 0$	$w = 1$							
	$y_4 y_3 y_2 y_1$	$Y_4 Y_3 Y_2 Y_1$	$Y_4 Y_3 Y_2 Y_1$	$R1_{out}$	$R1_{in}$	$R2_{out}$	$R2_{in}$	$R3_{out}$	$R3_{in}$	$Done$
A	0 0 0 1	0 0 0 1	0 0 1 0	0	0	0	0	0	0	0
B	0 0 1 0	0 1 0 0	0 1 0 0	0	0	1	0	0	1	0
C	0 1 0 0	1 0 0 0	1 0 0 0	1	0	0	1	0	0	0
D	1 0 0 0	0 0 0 1	0 0 0 1	0	1	0	0	1	0	1

**Figure 6.21** One-hot state assignment for the state table in Figure 6.12.