			multiplier is 4-bits: must have 4 shifts										
	Multiplicand =	1001		9		Product expected: 9*11=99 [decimal]				Product in binary : 0110 0011			
	Multiplier =	1011		11									
			acts on shfits										
		current State	2-bit counter	Product Reg	Adder Reg	St (start)	M (multiplier check)	K (counter check	Load	Ad	Shift	Done (at the end)	
	t0	S0	b' 00	b' 0000 0000	b' 0000 0000	0	0	0	0	0	0	0	
	t1	S0	b' 00	b' 0000 0000	b' 0000 0000	1 (begins load)	0	0	1	0	0	0	
	t2	S1	b' 00	b' 0000 0000	b' 0000 1001	0	1	0	0	1	0	0	
	t3	S2	b' 00	b' 0000 1001	b' 0000 1001	0	1	0	0	0	1	0	
	t4	S1	b' 01	b' 0000 1001	b' 0001 0010	0	1	0	0	1	0	0	
	t5	S2	b' 01	b' 0001 1011	b' 0001 0010	0	1	0	0	0	1	0	
	t6	S1	b'10	b' 0001 1011	b' 0010 0100	0	0	0	0	0	1	0	
	t7	S1	b'11	b' 0001 1011	b' 0100 1000	0	1	1	0	1	0	0	
	t8	S2	b' 11	b' 0110 0011	b' 0100 1000	0	1	1	0	0	1	0	
	t9	S3	b' 00	b' 0110 0011	b' 0000 0000	0	1	0	0	0	0	1	