

ECE 2300L
Digital Logic Design Laboratory

Experiment 10

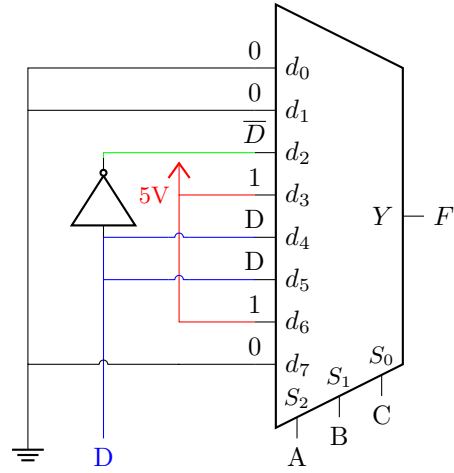
Report

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April 16, 2020

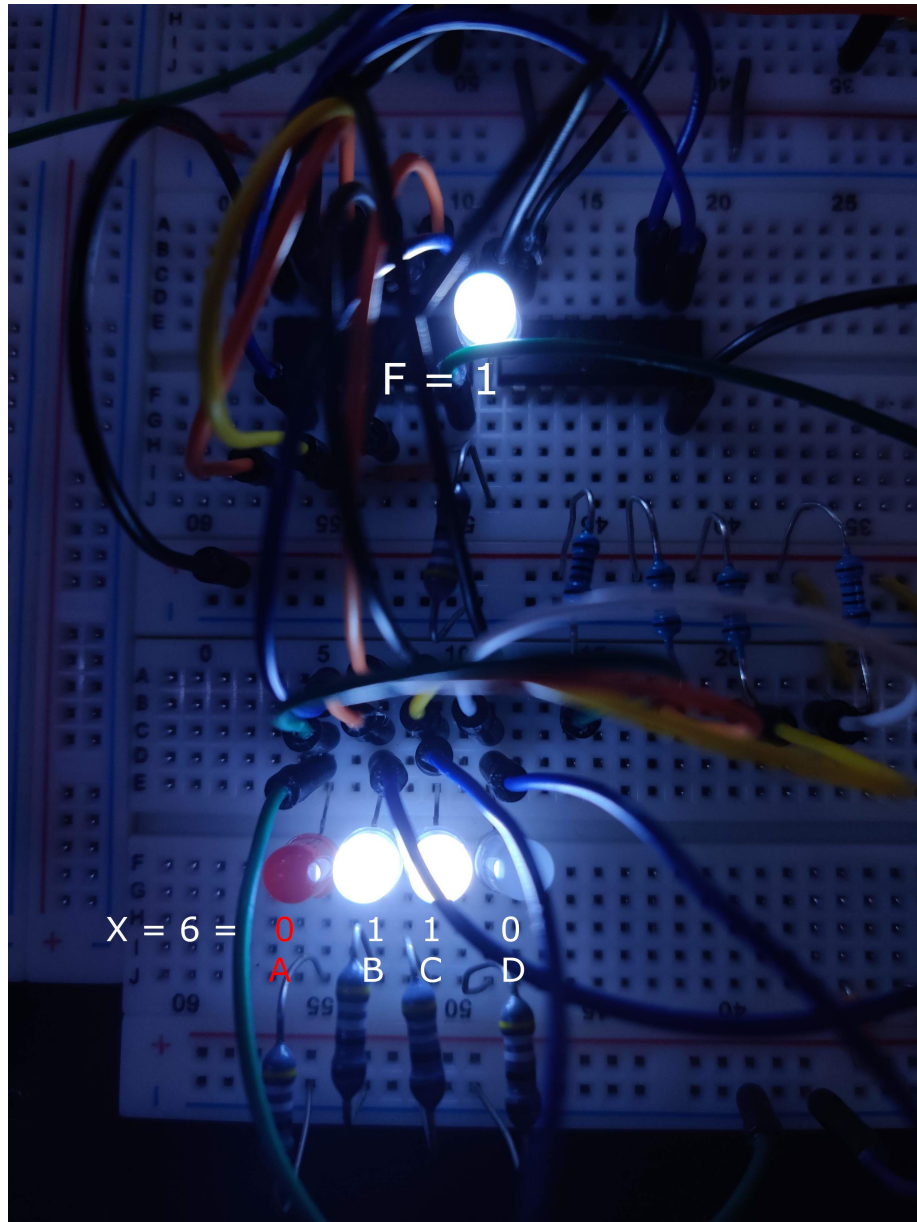
$$F(ABCD) = \sum (m_4, m_6, m_7, m_9, m_{11}, m_{12}, m_{13})$$

A	B	C	D	F	d_n	A	B	C	D	F	d_n
0	0	0	0	0	$d_0 = 0$	1	0	0	0	0	$d_4 = D$
0	0	0	1	0		1	0	0	1	1	
0	0	1	0	0	$d_1 = 0$	1	0	1	0	0	$d_5 = D$
0	0	1	1	0		1	0	1	1	1	
0	1	0	0	1	$d_2 = \overline{D}$	1	1	0	0	1	$d_6 = 1$
0	1	0	1	0		1	1	0	1	1	
0	1	1	0	1	$d_3 = 1$	1	1	1	0	0	$d_7 = 0$
0	1	1	1	1		1	1	1	1	0	



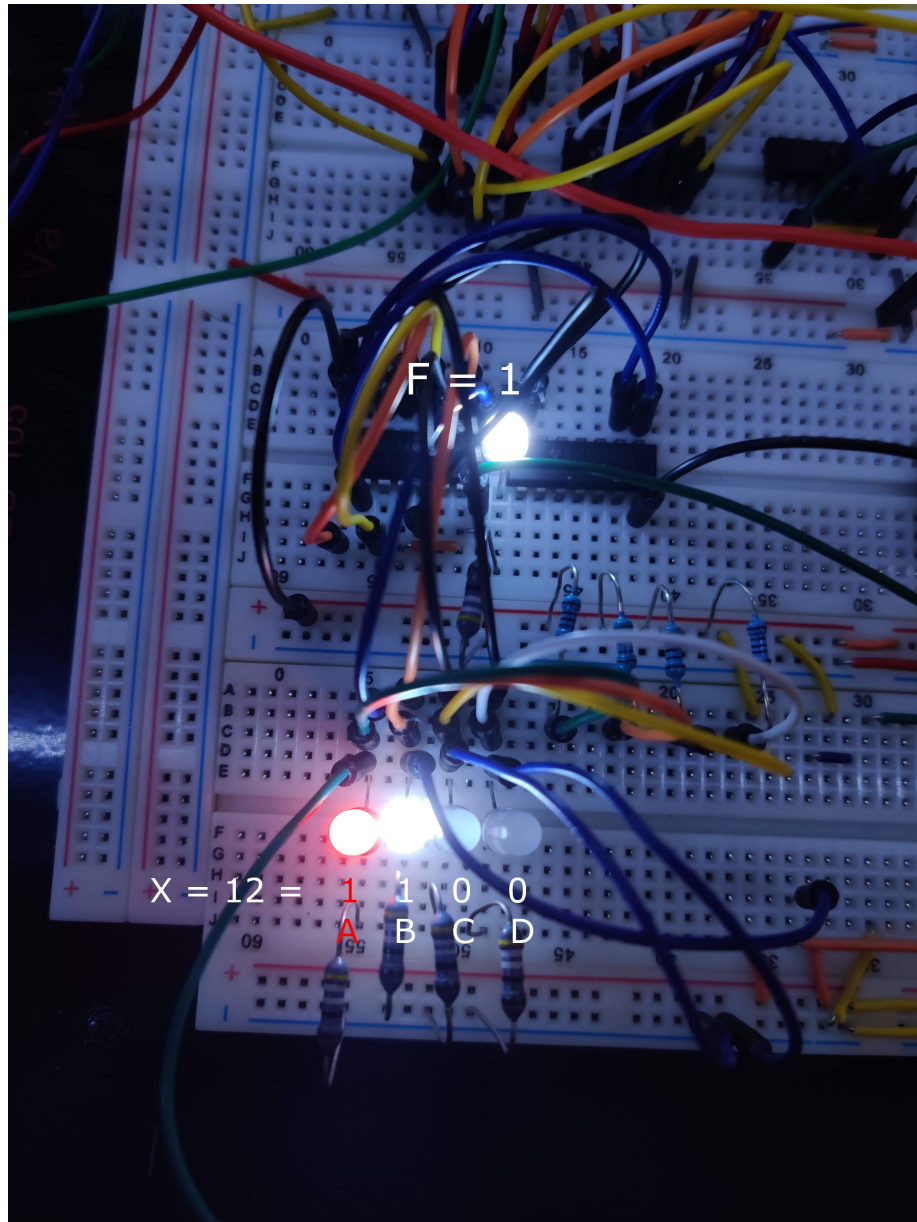
1 $X = 6$, LED ON

$$X = 6 = (0110)_2$$



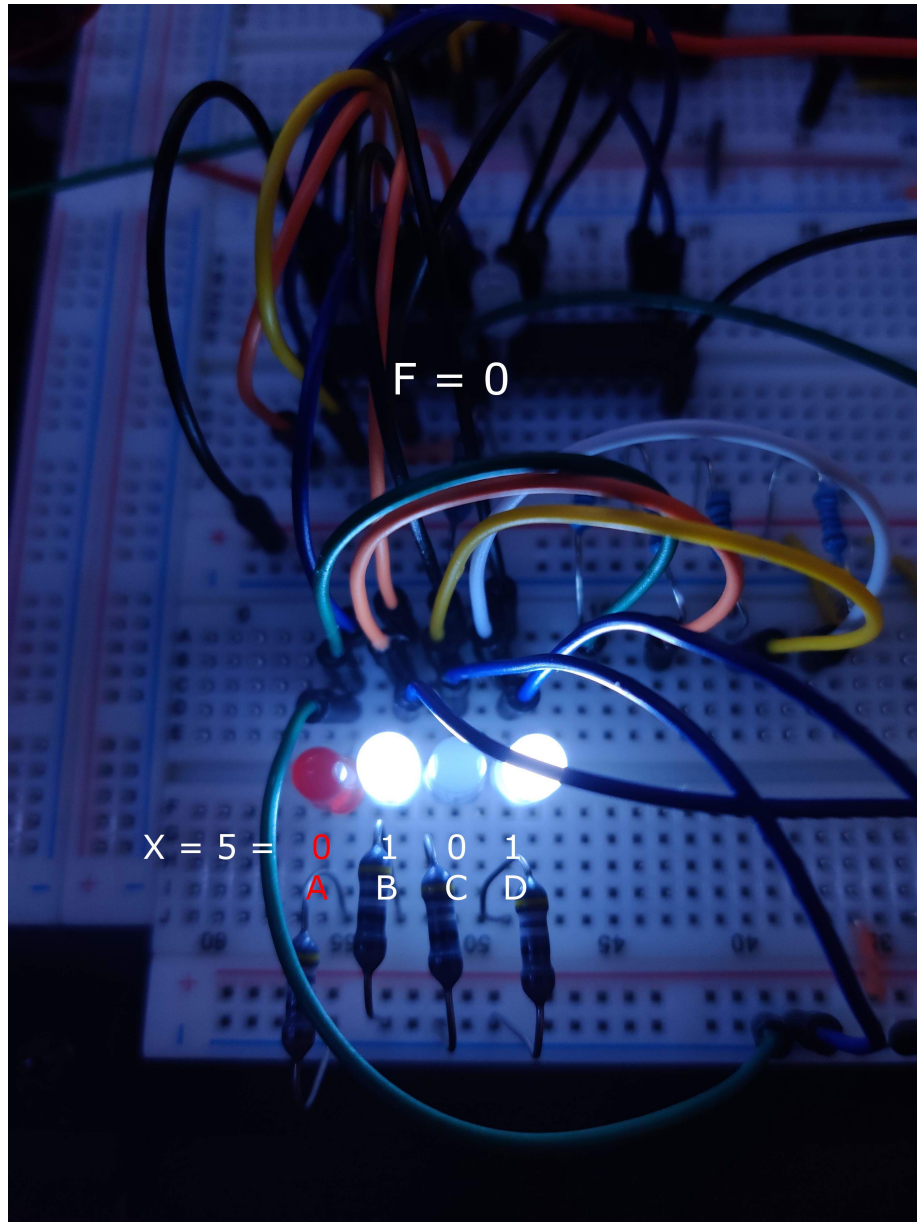
2 $X = 12$, LED ON

$$X = 12 = (1100)_2$$



3 $X = 5$, LED OFF

$$X = 5 = (0101)_2$$



4 $X = 10$, LED OFF

$$X = 10 = (1010)_2$$

