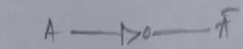
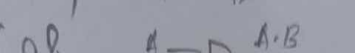
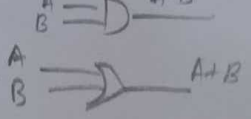
Boolean Expn — $\bar{A}B\bar{C} + A\bar{B}\bar{C} = y = f(A,B,C)$.

Truth Table :-

A	B	C	$\bar{A}$	$\bar{B}$	$\bar{C}$	$\bar{A}B\bar{C}$	$A\bar{B}\bar{C}$	y
0	0	0	1	1	1	0	0	0
0	0	1	1	1	0	1	0	1
0	1	0	1	0	1	0	0	0
0	1	1	1	0	0	0	0	0
1	0	0	0	1	1	0	0	0
1	0	1	0	1	0	0	1	1
1	1	0	0	0	1	0	0	0
1	1	1	0	0	0	0	0	0

NOT — 74HC04 

AND — 74HC08 

OR — 74HC32 

- These are 14 pins ics. 4 pairs of i/ps & o/ps
  ∴ 12 i/ps & 4 o/ps.

Gates we Require here ⇒.

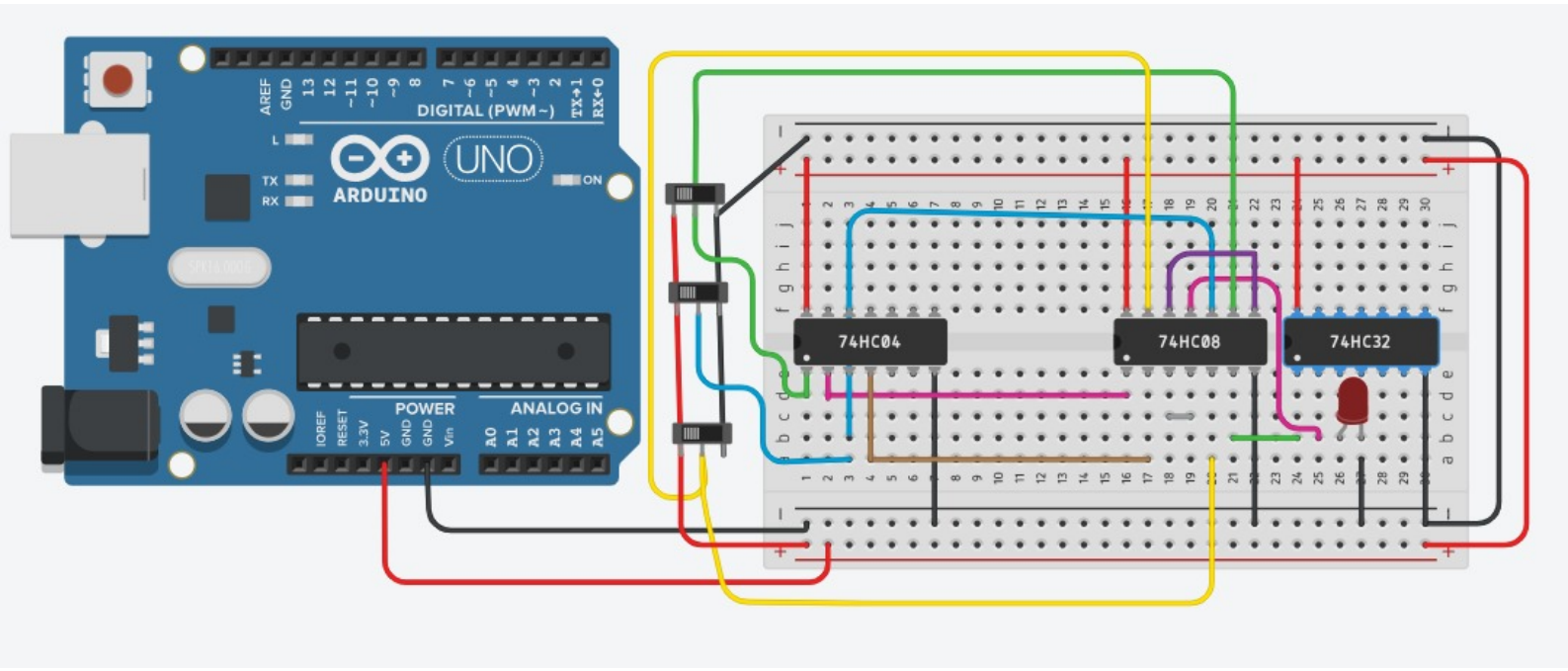
$\bar{A}\bar{B}C + A\bar{B}\bar{C}$:

1 OR Gate
4 AND
3 NOR

1- 74HC32 IC
1- 74HC08 IC
1- 74HC04 IC.

∴ 1 ic can provide upto 4 functions.

3


AREF
GND
13
12
~11
~10
~9
8
7
~6
~5
4
~3
2
TX→1
RX←0
DIGITAL (PWM~)
L
TX
RX
ARDUINO
UNO
ON
POWER
ANALOG IN
IOREF
RESET
3.3V
5V
GND
GND
Vin
A0
A1
A2
A3
A4
A5
74HC04
74HC08
74HC32