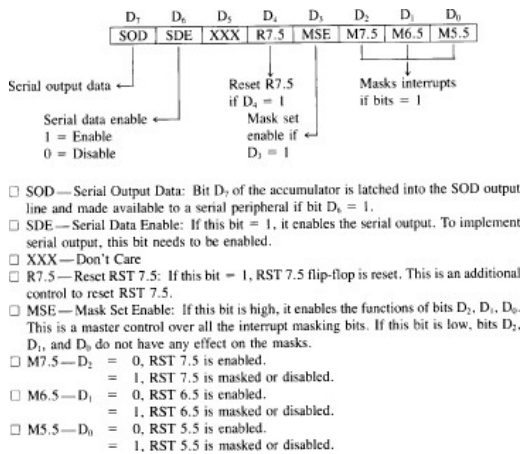
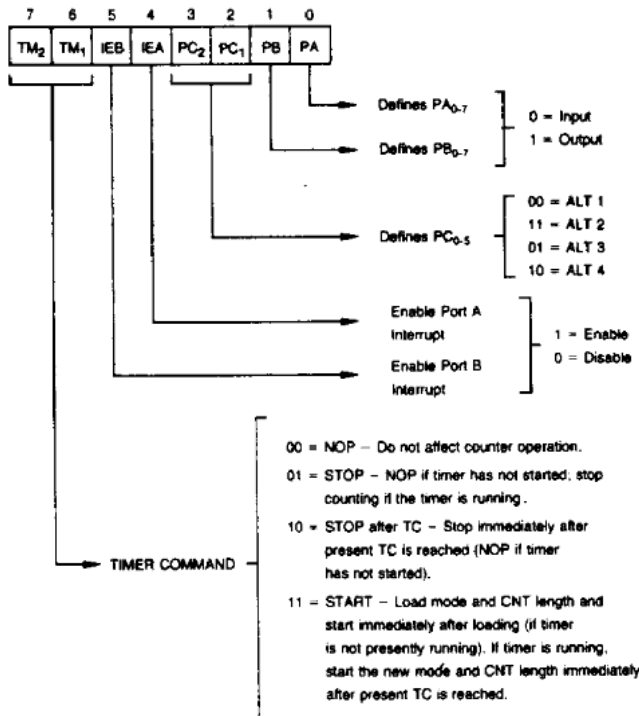


Electronic Ludo

31 May 2012
15:07



Column deciding Algorithm

Player 1

$$\text{Player 2} = (\text{Player 1} + 3) \% 12$$

If

Counter	Player 1	Column	Port A	Port B
1-5	1	01	00	
6-11	2	00	02	
12	3	00	04	
13-18	4	00	08	
19-24	5	00	01	
25	6	80	00	
26-31	7	40	00	
32-37	8	20	00	
38	9	10	00	
39-44	10	08	00	
45-50	11	04	00	
51-56	12	02	00	

$$\text{Player 3} = (\text{Player 1} + 6) \% 12$$

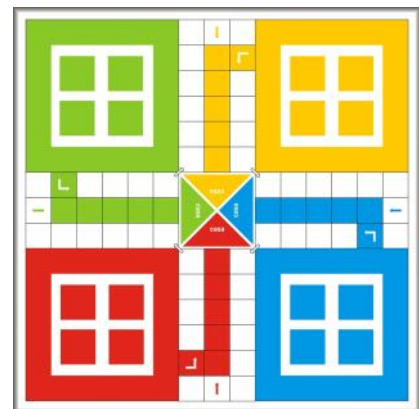
$$\text{Player 4} = (\text{Player 1} + 9) \% 12$$

1 Row
Dice LEDs

1 Row
Players and Win/Lose + 1 dice led

Control 9 Control 8 Control 7
5 6 7

Control 12 - 4
Control 11 - 3
Control 10 - 2



8 - Control 6
9 - Control 5
10 - Control 4

Control 1 Control 2 Control 3
1 12 11

Oops ! It was active low. Have to change all to their complements. Here is the corrected list.

Port A	Port B
FE	FF
FF	FD
FF	FB
FF	F7
FF	FE
7F	FF
BF	FF
DF	FF
EF	FF
F7	FF
FB	FF
FD	FF

LEDdata algorithm

Count	LED-data
1	02H
2	04H
3	08H
4	10H
5	20H
6	20H
7	10H
8	08H
9	04H
10	02H
11	01H
12	01H
13	01H
14	02H (starts repeating)
15	04H
16	08H
17	10H
.	.
.	.

Dice Data

Dice Number	Data 1	Data 2
1	00H	(20H)
2	12H	No effect
3	0CH	(20H)
4	2DH	No effect
5	2DH	(20H)
6	3FH	No effect