

## EECE 344 Lab 4

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Inputs (PDR active high)

Switch 1 PA7 button

Switch 2 PA 6 weight sensor

PA7	PA6	Definition
0	0	No one in booth
0	1	Someone in booth
1	0	Trying to enter empty booth
1	1	Trying to enter occupied booth

Outputs

LED 1 PA5 Door 1

LED 2 PA4 UV light

LED 3 PA3 Door 2

PA5	PA4	PA3	Definition
0	0	0	both doors closed empty booth
1	0	0	door 1 opens door 2 is closed
0	1	0	both doors closed person inside
0	0	1	door 1 is closed door 2 opens

## States

empty- both doors closed leds off

enter- door 1 open door 2 closed

hold- both doors closed led 2 on

leave- door 1 closed door 2 open

## Output determination of system

State	Time	00	01	10	11	Output
Empty	1	Empty	Empty	Enter	Empty	0x00
Enter	2	Empty	Hold	Enter	Hold	0x20
Hold	4	Leave	Leave	Leave	Leave	0x10
Leave	3	Empty	Leave	Empty	Leave	0x08

## State transition graph

