

Truth Table + Boolean Expressions

MATCH_CODE	PUSH BUTTON	LED1	LED2	UNLOCKED / "U" (7seg: b, c, d, e, f)	LOCKED / "-" (7seg: g)
0	0	0	0	0	1
0	1	0	0	0	1
1	0	1	0	0	1
1	1	1	1	1	0

Let "M" be MATCH_CODE and P be "PUSHBUTTON"...

$$\text{LED1} = M$$

$$\text{LED2} = MP$$

$$\text{UNLOCKED} = MP$$

$$\text{LOCKED} = \overline{M} + \overline{P}$$