

# Digital Cipher & Interlock System

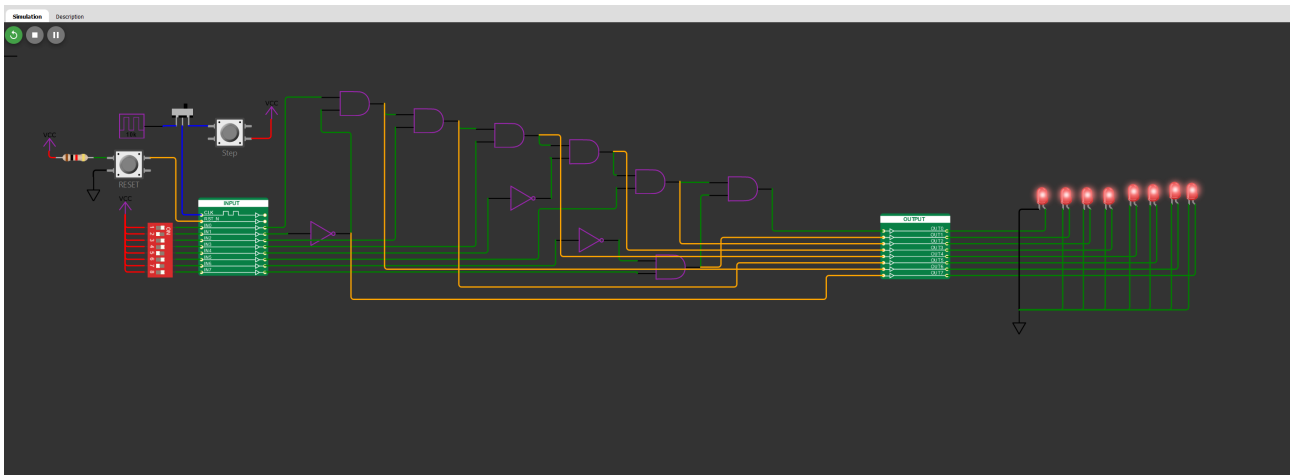


Figure 1: picture

- Author: Eric German MKME Lab
- Description: Digital Cipher with 256 combinations & one solution which sets output to high
- Language: Wokwi

## How it works

Can be used as a simple puzzle demo or as a safety chain/interlock on equipment. Being hardware interlocks without microcontroller logic it mimics a standalone safety relay function which is used to verify all subsystems are online before allowing machinery to run. The high or low input can be tied to the sensors and switches in the safety chain. Only when all are in the desired state will the output be OKAY/HIGH. NO and NC switches/sensors can be tied to the appropriate pins. Feedback signals are provided from gate outputs by FB1 through FB7

## How to test

Provide below inputs on the required pins to activate output

IO

#	Input	Output	Bidirectional
0	HIGH	HIGH All Chain Unlocked	none
1	LOW	FB1 Feedback signal	none

#	Input	Output	Bidirectional
2	HIGH	FB2 Feedback signal	none
3	HIGH	FB3 Feedback signal	none
4	LOW	FB4 Feedback signal	none
5	HIGH	FB5 Feedback signal	none
6	LOW	FB6 Feedback signal	none
7	HIGH	FB7 Feedback signal	none