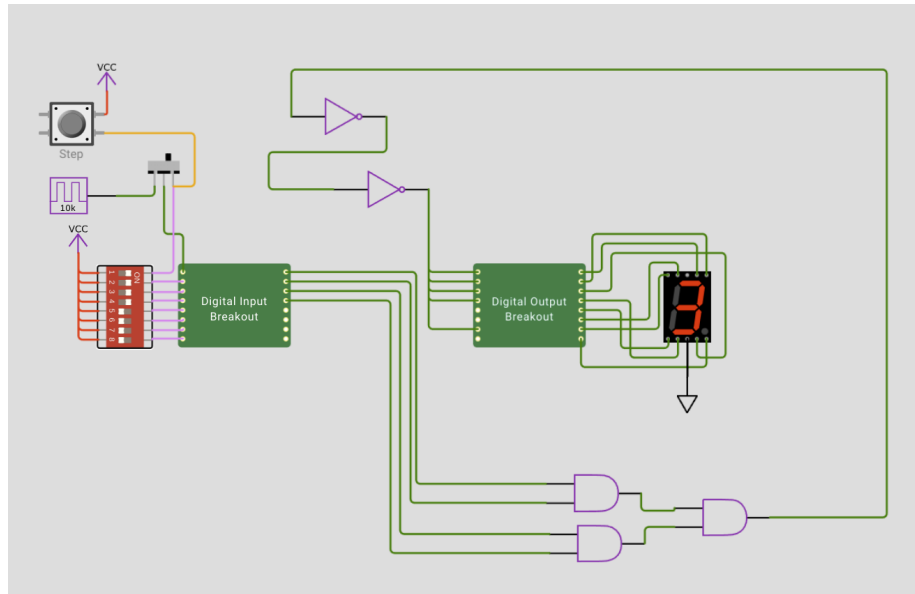# M segments

Figure 1: picture

- Author Matt Venn
- Description Setting the correct input will show a 3 on the display
- GitHub project
- Wokwi project
- Extra docs
- Clock 0 Hz
- External hardware None

How it works

AND gates connect to the 7 segment display

How to test

Turning on the first 4 inputs will show a 3 on the display

IO

#	Input	Output
0	input 1	segment a
1	input 2	segment b

1

#	Input	Output
2	input 3	segment c
3	input 4	segment d
4	none	segment e
5	none	segment f
6	none	segment g
7	none	dot

Barrelshifter

- Author Johannes Hoff
- Description Shifts a 6 bit number up to 0-3 bits left
- GitHub project
- Wokwi project
- Extra docs
- Clock 0 Hz
- External hardware

How it works

An 6 bit input value and 2 bit shift amount is provided, and the shifted value will be in the output

How to test

Choose an input value (like 6'b001010) and a shift amount (like 2'b10) and combine it into input pins (like 8'b00101010) and observe that the output is the shifted input (like 8'b10100000)

IO

#	Input	Output
0	bit 5 (most significant) of input value	bit 7 (most significant) of shifted value
1	bit 4 of input value	bit 6 of shifted value
2	bit 3 of input value	bit 5 of shifted value
3	bit 2 of input value	bit 4 of shifted value
4	bit 1 of input value	bit 3 of shifted value
5	bit 0 (least significant) of input value	bit 2 of shifted value
6	bit 5 (most significant) of shift amount	bit 1 of shifted value
7	bit 0 (least significant) of shift amount	bit 0 (least significant) of shifted value