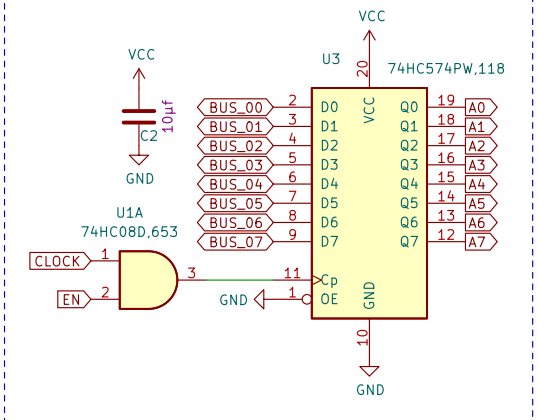
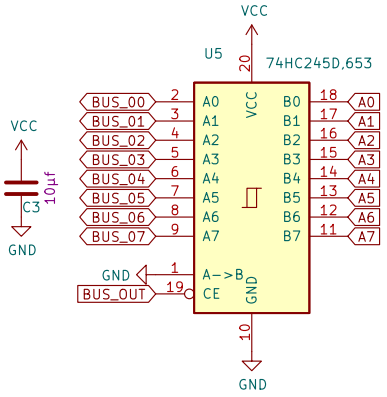
8bit General Purpose Register



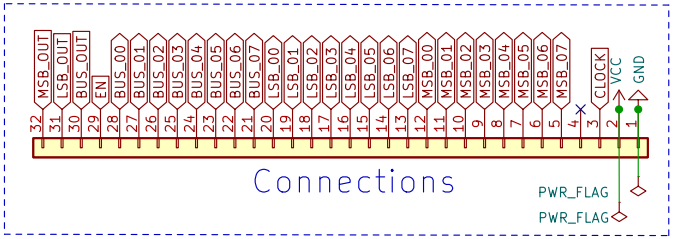
8bit Register

This will latch in data from the Data BUS with the rising edge of the clock and a HIGH signal on EN line

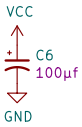


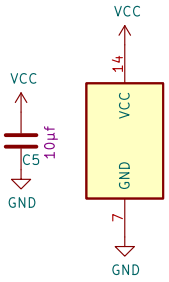
Non Inverting Buffer

When BUS_OUT is set LOW, this register will assert its value out onto the DATA BUS



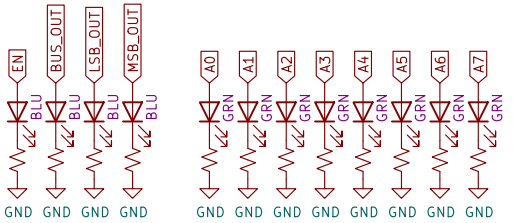
Connections



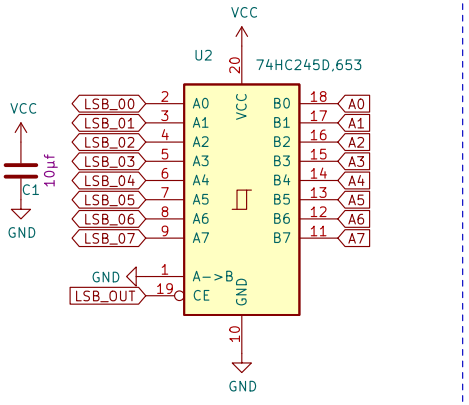


AND Gate

Used to Enable the Register along with the Clock Pulse

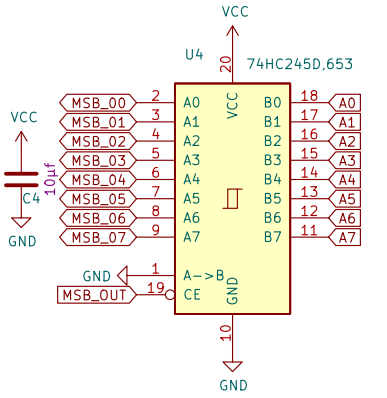


LED Indicators



Non Inverting Buffer

When LSB_OUT is set LOW, this register will assert its value out onto the LSB BUS



Non Inverting Buffer

When MSB_OUT is set LOW, this register will assert its value out onto the MSB BUS

Stores a byte of data and asserts it to two different busses.

$\overline{\text{MSB\_OUT}}$	$\overline{\text{LSB\_OUT}}$	$\overline{\text{BUS\_OUT}}$	EN	CLK	
0	1	1	1	x	– Outputs to MSB of Address Bus
1	0	1	1	x	– Outputs to LSB of Address Bus
1	1	0	1	x	– Outputs to Data Bus
1	1	1	0	/	– Latches Data
1	1	1	1	x	– Noop

1 – HIGH
0 – LOW
x – Dont care
/ – Rising Edge

Sheet: /
File: smd–register–array.kicad_sch

Title: 8bit General Purpose Register

Size: A4	Date: 2021–08–02	**Rev: 3**
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