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Introduction To Digital Electronics – Lesson 10: Design An LED Chaser

PARTS

The following information is meant to go with the online lesson found here:
http://www.pyroelectro.com/edu/digital/led_chaser/

PARTS OF AN LED CHASER

Building an LED chaser required a large variety of parts. The main sections of the LED chaser were the state-machine and the shift register. The parts listed out below will provide some more detail on the main IC's used in this lesson's design and experiment.

Picture	Type	Description
	Thru Hole 555 Timer 8 Pin DIP	The clock signal to drive the shift register was derived from this 555 timer. We set it to two modes, one at 0.5 Hz and one a little faster at around 10 Hz. Datasheet Link
	74HC74 D Flip-Flop IC	We'll use two 74HC74's because we need a 4-bit shift register. These will also be the 4 LED drivers. Datasheet Link
	74HC02 NOR Gate IC	The NOR Gate IC will be used to build the state machine as well as check to see if all outputs are 0. Datasheet Link

ADDITIONAL INFORMATION

To ask questions about anything found in this information please head on over to the forums located at:

<http://www.pyroelectro.com/forums/viewforum.php?f=21>