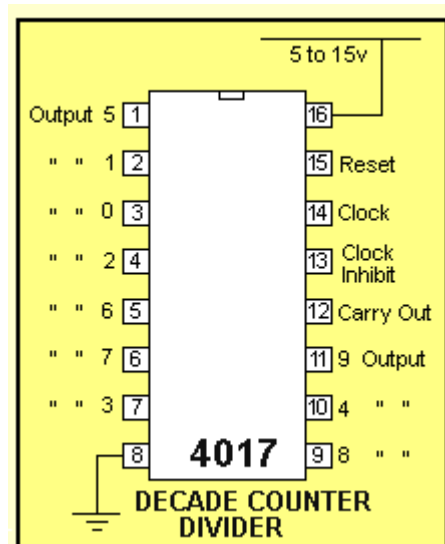


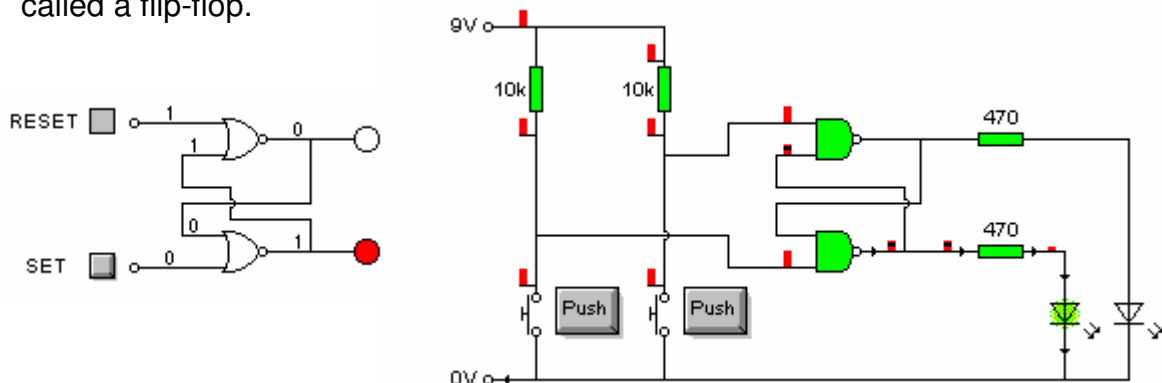
Sequencing

The simplest method of doing several operations in sequence is to use a 4017 decade counter. When driven by an astable or by a simple push switch, it will sequence through its ten outputs and then restart. If you want less than ten outputs then wire one output to the reset pin. For example, if you need 6 outputs for an electronic dice then output 6 would be wired to reset (pin 5 to pin 15). You will notice that the outputs are in a very strange order. Clock Inhibit must be kept normally low. Connect Clock to your input. Carry Out is normally ignored.

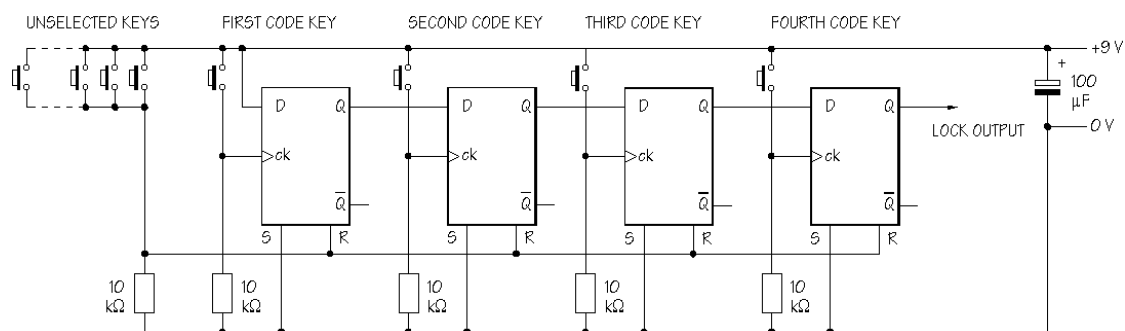


Logic Latches

Logic gates can be combined to form a latch (or Set Reset Latch), sometimes called a flip-flop.



The Croc-Clip diagrams show SR Latches using Nor gates and Nand gates. In practice the right-hand circuit wouldn't work very well with the LEDs attached because they take too much current. You would need to use an extra gate as a buffer or use a transistor driver. These latches are used for sequential logic because they remember what the input was even when the input has gone. You could use four of them to check whether the correct switches for a keypad lock were pushed. Any key that should not be pushed is wired up to reset all the latches.



If you use a D type Latch in the circuit shown, the lock will only be released if the keys are pressed in the right order.