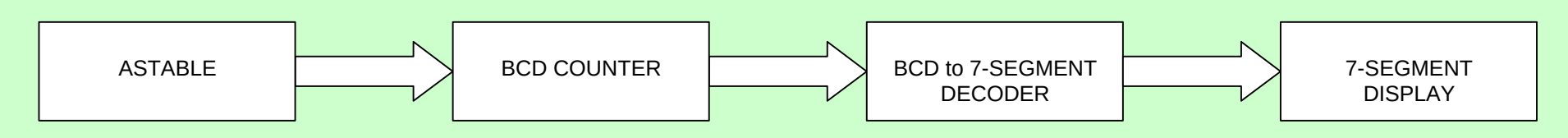
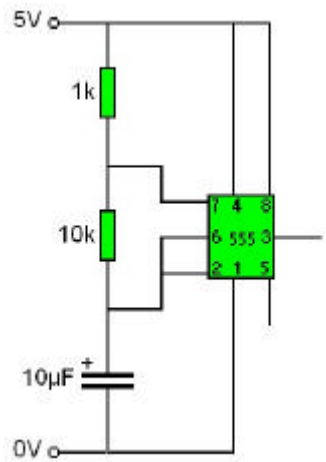
How To Make A Digital Counter – Using Crocodile Clips©

A Digital Counter can be constructed as shown in the block diagram.

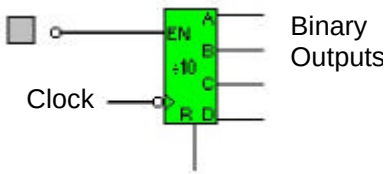


Using Crocodile Clips, construct a counter by following the steps below and joining them together.
NOTE: The supply voltage is 5V NOT 9V.

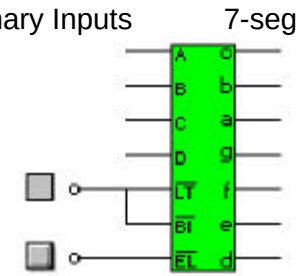
Firstly we need a clock source. Something that will provide continuous pulses, such as an astable. A standard 555 timer can be connected as an astable.



Next we need a counter. If we are to use a binary counter, it must be the BCD type. (divide by 10). Connect the output from the astable to the clock input of the counter.



The output from the counter in binary, but we need it DECODED to light up the correct segments on a 7 segment display.



Finally the display itself. Remember you must put a resistor in series with each LED segment on the display. Make sure you connect a to a, b to b,…