

Re: Random timer!

# Re: Random timer!

---

*Source:* <http://sci.tech-archive.net/Archive/sci.electronics.basics/2007-06/msg00098.html>

---

- *From:* Baron <[baron.nospam@xxxxxxxxxxxxxxxxxxxxxxxxxxxxx](mailto:baron.nospam@xxxxxxxxxxxxxxxxxxxxxxxxxxxxx)>
  - *Date:* Sun, 03 Jun 2007 19:06:49 +0100
- 

Hi Bob,

Bob Masta inscribed thus:

On Sat, 02 Jun 2007 16:25:48 +0100, Baron  
<[baron.nospam@xxxxxxxxxxxxxxxxxxxxxxxxxxxxx](mailto:baron.nospam@xxxxxxxxxxxxxxxxxxxxxxxxxxxxx)> wrote:

John Fields inscribed thus:

1. When the START button is pushed, a four-bit pseudo-randomly generated number is loaded into a four bit binary delay counter and the counter enabled.

This is the bit that I am struggling with !

Jasen's original suggestion makes a great pseudo-random generator. Just have a 4-bit counter counting a fast clock. When the START button is hit, the counter will be at some random value (random due to the random timing of the START press relative to the high-speed clock). You just have to switch off that clock and switch to a low-speed clock for your count-down. (You can switch the timing values in a single clock, or have 2 separate clocks for this.)

Best regards,

Bob Masta

D A Q A R T A

Re: Random timer!

Re: Random timer!

Data Acquisition And Real-Time Analysis  
www.daqarta.com  
Scope, Spectrum, Spectrogram, Signal Generator  
Science with your sound card!

Right lets see if I've got this right !

I've breadboarded the 555 timer circuit from Jason. This is the clock input to a SN74194 via an AND gate. The outputs are OR'ed so that if any one is high the output is high. This output starts the counter when it goes low.

The 555 goes fast incrementing the 74194 until the button is pressed. When this happens the 555 runs slow and the 74194 is decremented. When the 74194 hits all zeros the OR'ed output starts the counter, turns on a light and gates off the 555 output.

Pressing the second button resets everything.

I hope that it makes sense ! It does to me now that I realised that the random element was the time between button presses !

--

Best Regards:  
Baron.

.

Re: Random timer!