

Re: Clock Project

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- *From:* "North Coast Igor" <igorshump@xxxxxxxxxx>
 - *Date:* 7 Mar 2007 16:25:33 -0800
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Right, Ed. Time value is incremented by the escapement period time value. (This is true of every mechanical clock, when you think about it.)

I didn't provide detail on the "escapement mechanism" b/c it's not important regarding the portion I need help with. The Increment will be many seconds and you understood perfectly. The "escapement mechanism" operates over a repeatable-enough period of time and THAT time period will be the "increment".

My own thought since I described the problem is that instead of counters, gates and DIP switches, a small microprocessor chip would be the easy way to program the increment function (especially regarding re-programmability). --probably cheaper, too.

Thanks for responding.

North Coast Igor - Marc

ehsjr wrote:

North Coast Igor wrote:

Thanks for the reply, Anthony.

You understood okay, but I was thinking of a complex escapement mechanism that is amusing (?) to watch and has a period of many seconds. Accuracy is not a goal here; the goal is more: "you can keep time with THAT ?"

The latched increment input into a clock driver is the part for which I'm seeking help.

Thanks again.

Marc

I'm lost on your description, too.

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Do you want to _add_ the incremental value to the previously stored value each interval?

Ed

Anthony Fremont wrote:

igorshump@xxxxxxxxx wrote:

Would like to build a digital clock with a long-duration mechanical escapement ("artistic" part).

I found Bill Bowen's site

http://ourworld.compuserve.com/homepages/Bill_Bowden/

and could probably decipher something here, but thought I'd try for some advice/ shortcut.

I envision empirically determining the periodicity of my "escapement mechanism" and inputting that time period into my clock via dip switches.

I had to read this a couple of times before I got it (I think). If I understand you, you want to use a pendulum of arbitrary length (and arbitrary period) and then have this advance the clock mechanism the correct amount for each swing. For example, say you used a 1 meter long pendulum with a period of 2 seconds. You would want to advance the the clock 2 seconds each cycle. Correct?

This number (not much resolution needed due to mechanical vagaries of long-period escapement) would

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then be latched into the clock electronics to provide the clock increment.

Not sure what you mean here, there is nothing vague about the motion of a pendulum.

One could call this a "variable increment clock", I guess.

Could someone point me to a circuit that comes close to this?

Bryan Mumford has something like this going, but he uses a pendulum to generate the pulses to an electrical drive system for the hands. He keeps the pendulum going with magnetic impulses. The impulses are triggered by the pendulum itself, so that the pendulum is the thing actually keeping time.

<http://www.bmumford.com/clocks/em2/index.html>