

Re: watering system, second attempt.

Source: <http://sci.tech-archive.net/Archive/sci.electronics.basics/2004-08/0430.html>

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Date: 08/07/04

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On Wed, 04 Aug 2004 21:33:12 +0100, andy wrote:

- > *after the comments on my first version, i've redesigned the circuit using*
- > *CMOS ICs and a mosfet to switch the coil. I was meaning to get it working*
- > *before i posted the new design, but i'm waiting for some parts, so i'm*
- > *posting it now to see what people think. as before, i would appreciate any*
- > *comments on how i've done it.*
- >
- > *mostly what i want to know is if there's*
- > *anything that will stop it working the way i'm expecting, cause parts to*
- > *fail, cause a hazard, or if i've missed any obvious simplifications to the*
- > *design i've come up with. it's a bit more complex than before, because*
- > *i've added a feature to water in the morning, evening or both.*
- >
- > *I've tested the part of the circuit that gets the light on/off signal from*
- > *the LDR using the 393, and xors it with the 'force watering' switch*
- > *signal, but then a chip failed and i'm waiting to get another one.*
- >
- > <http://www.niftybits.ukfsn.org/electronics/daily-water-with-chip.jpg>
- > <http://www.niftybits.ukfsn.org/electronics/daily-water-with-chip.png>
- >
- > *if you still think it's junk then say so, but i'd like to know why.*

I've simplified it to just 2 chips after the comments from terry and active8.

see:

<http://skullcap23.tripod.com/daily-water3-bw.png>

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One thing i'm not sure about is whether i need the 2N3906 on the output, or whether i could drive the MOSFET directly from the 4538 monostable's outputs if i used the noninverting outputs and put the diodes the other way round.

Apart from that, I'm going to stick with this design, just to get the thing built. I had most of it working on breadboard last night, so I think

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it will do the job even if it's not the best solution.

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