

Re: Measuring motor RPM with micro.

Source: <http://sci.tech--archive.net/Archive/sci.electronics.design/2006-06/msg03193.html>

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- *Date:* Wed, 14 Jun 2006 15:27:52 -0500

On 14 Jun 2006 05:46:31 -0700, seegoon99@xxxxxxxx wrote:

Hi all.

I am trying to measure the RPM of a motor and have a few questions. The motor is turning slowly (about 132RPM after gearing). There is an "optical encoder" on the shaft that gives me 8 pulses / rev. This gives me a pulse every 56ms or so.

How can I calculate the RPM of the motor WITHOUT using floating point routines and in a fairly fast time.

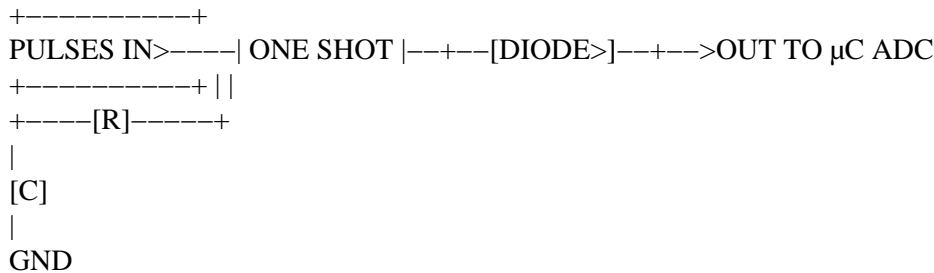
I could wait 1 second, count the number of pulses / 8 * 60 to get RPM, but this takes far too long (1s) :(I can measure fewer pulses, but the time is still too long.

I could measure the period of 1 pulse, invert / 8 * 60 to give RPM. This is much quicker, but involves floating point routines. I can gate a timer in the micro with the pulses from the encoder to give me a count in the micro, but this will also involve floating point routines to get back to rpm.

Is there a simple solution to this problem (probably) and I've missed the boat completely or am I stuck with the options I have described:0(

Build a little integrator?

use the one-shot to make all the pulses one width and then use them to charge a cap:



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John Fields
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