

Re: PIC or Freescale HC08 ??

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- *From:* <r.laury@xxxxxxxxxxx>
 - *Date:* Mon, 27 Mar 2006 09:32:13 -0600
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Thanks all
This gives me a direction to work toward.

RonL

"Spehro Pefhany" <speffSNIP@xxxxxxxxxxxxxxxxxxxxxxxx> wrote in message
<news:aurf2210c73v2igt9tv11u471mt6b5eeq@xxxxxxxxxxx>

On Mon, 27 Mar 2006 00:52:27 -0600, the renowned <r.laury@xxxxxxxxxxx>
wrote:

Hi Group:
I've got a project that I'm contemplating that needs:

To read a keypad with 20 switches.
Control 7 digits of 7 seven segment displays.
Generate pulses for a small stepper motor. (full step and micro step)
Possible control of a brushless servo motor with encoder feedback.
Monitor a few simple sensors.
A few hundred bytes of RAM is enough.
Program size with lookup tables ect, should be under 4-6K.
Flash would be nice.

I've never worked with the PIC and looking at their product line up
there's
just too many to chose from.
I have worked with the Motorola stuff (HC05) but they are not making
anymore
HC05 parts.

The HC08 is the flash-based replacement for the HC05 in Freescale's
lineup, though they have recently announced a stripped version
HC08/5/4 for really cost-sensitive consumer applications. I forget
what they call it, but it's probably not of interest to you anyway.
The 08s are nice parts.

Re: PIC or Freescale HC08 ??

My question is, What PIC would you use to do the above. Or maybe use several PIC's to get the job done?
Or would you just go for one of the bigger HC08's?

The core micro is not so important except how it might fit with your experience and tools. If you're used to the 05, you'll probably find the PIC rather irritating, especially the lower-end ones. Unless you're very cost-constrained start with the 18f, 24f or dspic series.

Is the potential BLDC motor/tachometer input (quadrature input?) concurrent with the stepper or 'instead of'?

You've got a number of fine-time resolution things going on at once that can only tolerate a limited amount of jitter or delay in reading them. That will determine the hardware you need. I see no reason to go to multiple processors or expensive controller chips, it can all be done with a single processor. Sounds like you need 4 or 5 timer-counter capture compare modules, which should simplify your search. If you need quadrature input, that will further limit things or you might choose to use some external logic there.

Best regards,
Spehro Pefhany

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"it's the network..." "The Journey is the reward"

speff@xxxxxxxxxxxxx Info for manufacturers:

<http://www.trexon.com>

Embedded software/hardware/analog Info for designers:

<http://www.speff.com>