

Re: Micro Programming help-CLARIFICATION

Source: <http://sci.tech-archive.net/Archive/sci.electronics.design/2004-11/4122.html>

From: hamilton (hamilton_at_deminsional.com)

Date: 11/15/04

Date: Sun, 14 Nov 2004 22:14:45 -0700

Kim wrote:

- > *Well, as nobody has offered up a hard quote... its hard to say.*
- > *I realise that the engineering is the lions share of the project, and that*
- > *requires a great deal of experience, and in ANY field, a great deal of*
- > *experience costs money.*
- > *Its not so much the effort that has made me assume that this is "outta my*
- > *league", its the thought that it would probably require a pic , or other*
- > *type of programmable chip, that I am simply not set up to deal with, and*
- > *have absolutely no experience with, either in construction, or especially in*
- > *programming.*
- > *I only need 1 unit, with another programmed controller, and display as a*
- > *backup, if somehow I manage to kill the first during my ham fisted*
- > *construction (assuming that I would construct it). Time is not a factor, as*
- > *I do not require this immediately.*
- > *Obviously, a very high price quote will kill off this project in a hurry,*
- > *which is why I've tried to stress the "off the shelf" parts, and the lack of*
- > *time constraints would help bring down the costs, if even only slightly.*
- > *All I can say is "here are the specs"...I wont be making ANY money on this,*
- > *now its up to the individuals out there to tell me what they will charge,*
- > *and if they think a project of this type would interest them personally.*
- > *Thanks*
- > *Kim*
- >

Thank you for your response.

Lets say that this project is properly documented. (so far its a good start, but only a start)

If a reasonable engineer would accept this project, what would the costs be.

We will ignore the cost of the parts for the moment.

Lets say the total project would take, Hmmm 40 hours.

At what price would be 40 hours.

\$ 5.00/hour = \$200

\$10.00/hour = \$400

\$12.50/hour = \$500

You get the idea.

If someone says they can do it 20 hours, the cost per hour would be higher for the better engineer. So it will still be hundreds of dollars.

So, where does that leave you.

You are correct that it can (should) be done with a single chip micro.

Pick one !!

OK, you said PIC, pick one.

Study it until you think you understand how you would use this PIC for this project. Please ask questions here about anything you find confusing.

But understand, now one is going to hand you a complete project.

The two things that will need to be done is understand the hardware and understand the software.

The discussion so far has been around the functions of the counter. Thats good, but thats software. The hardware discussion has been around long battery life and a LCD display.

To help get you started, I would suggest that you use a ATMEL AVR Butterfly Evaluation Kit.

http://www.atmel.com/dyn/products/tools_card.asp?tool_id=3146

Includes an LCD display and will run a long time on a coin cell.

(you can build your own package)

Its available from Digikey for only \$19.99.

<http://www.digikey.com/scripts/dksearch/dksus.dll?KeywordSearch?Mpart=ATAVRBFLY>

This is a good starting point for learning microprocessors.

TI also makes evaluation kits for little money, so you can learn.

The TI kits include an LCD display and runs of a coin cell.

Check ti TI site for MSP430 evaluation boards.

Good luck, we will help you in any way we can.

hamilton