

REQUIRED FORMAT FOR HOMEWORK SOLUTIONS

(when engineering format is not needed)

When a problem requires the application of fundamentals, then use the GIVEN, REQUIRED, SOLUTION, DISCUSSION format discussed in the last class. For other problems, such as activities from the Boe-Bot book, the “engineering format” is sometimes not needed. In these cases, format your homework as shown below for problems 1 and 2.

Requirements for non-engineering format homework problem solutions:

1. Copy the problem statement (it may be quickest if you do these problems using your word processor).
2. Always include the program listing (copy & paste). Put the program listing in a text box, and use a different font.
3. Do a screen capture, and crop out the Debug Terminal to show your output (when appropriate) – try MS Paint.
4. Write what you have completed and learned in your own words. Be concise (don't turn in excessive pages).
5. Number pages, put problems in the order by problem number in your solution.
6. Remember that it should be easy for a grader to pick up your paper and understand what you have done.

ME 199A

Homework 2

Solution

1. Purchase a BoeBot.

I ordered the BoeBot. It arrived on Monday.

2. Complete activities 1, 2, 3, 4, 5, 7 in chapter 1 of the Robotics workbook that came with the Boe-Bot kit. Bring your Boe-Bot to the next class. For all activities that include writing a program, include your program listing as part of your homework solution (activities 4) as well as the program output.

Activity 1: This activity works through downloading the latest version of the BASIC Stamp Editor software from the Internet. I downloaded the latest version off the Internet rather than using the CD since I wanted to be sure to get the latest release.

Activity 2: This activity involves installing the BASIC Stamp Editor software on my computer. I successfully installed the software.

Activity 3: This activity involves installing the Basic Stamp 2 (BS2) chip on the Board of Education, installing the batteries, powering up the Boe-Bot, and connecting the Board of Education to a computer. I successfully completed the tasks above and was able to get my computer to identify the BS2 chip.

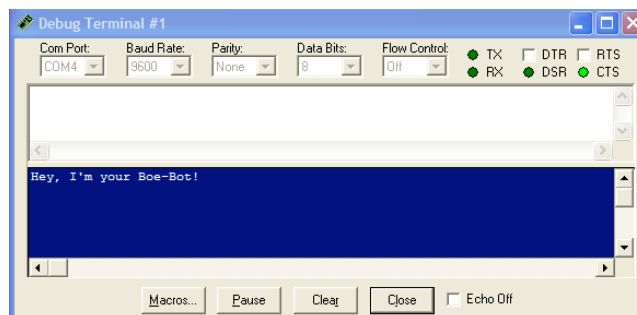
Activity 4: This activity involves downloading a program to the BS2 that causes the BS2 to send a printed message back to the debug terminal. The program that I wrote is given below:

```
' Jane Doe   Jan 12, 2010   ME 199A
' Robotics with the Boe-Bot - HelloBoeBot.bs2
'BASIC Stamp sends a text message to your
PC/laptop

' {$STAMP BS2}
' {$PBASIC 2.5}

DEBUG "Hey, I'm your Boe-Bot!"

END
```



I also wrote a program that multiplied 7 x 11 to give 77. The program is very similar to the one above and is not given here.

***** CONTINUE AS ABOVE FOR ACTIVITIES 5 AND 7 *****