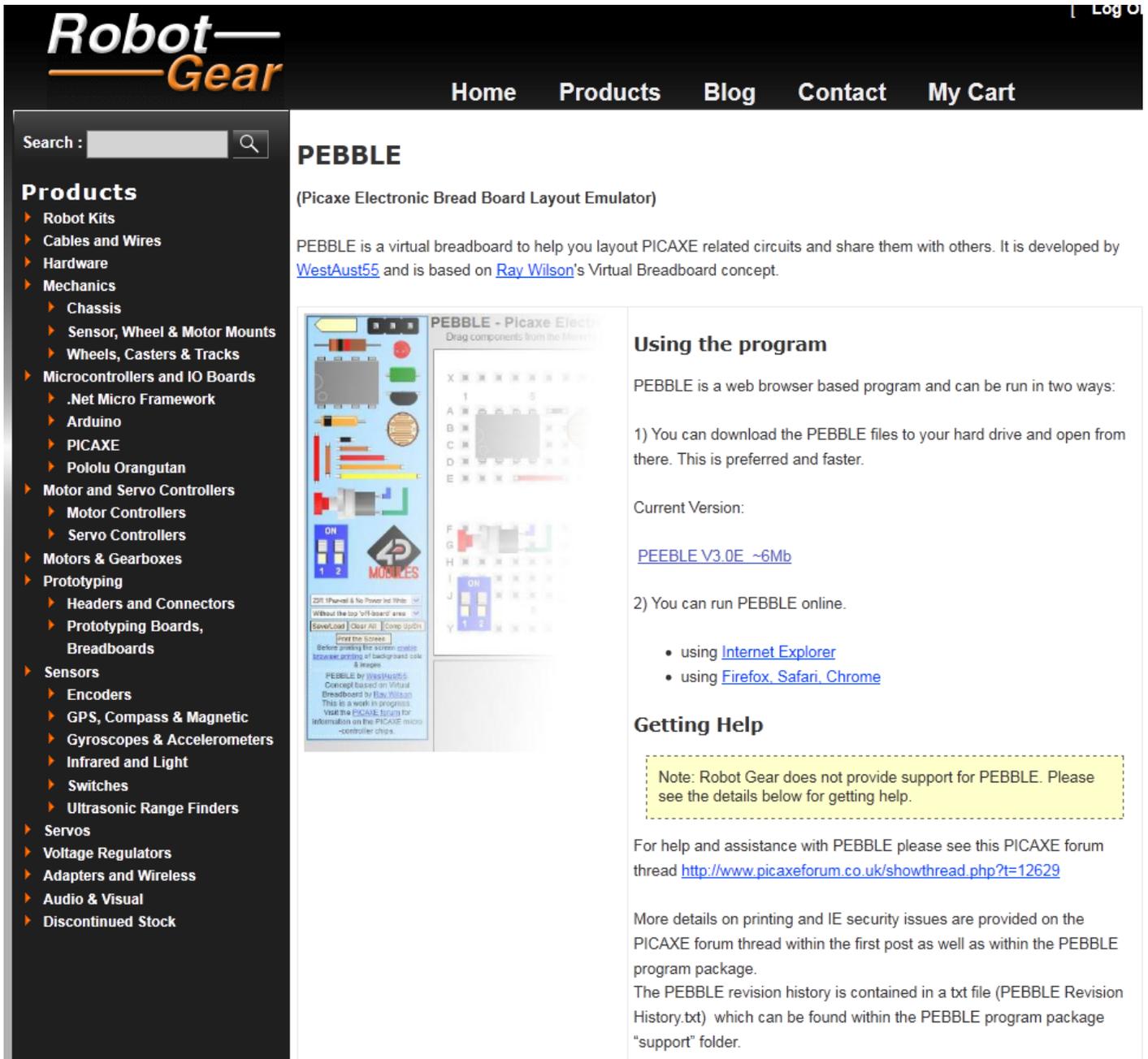EGR 270
Fundamentals of Computer Engineering

Pebble – Picaxe Electronic Breadboard Layout Emulator

Pebble can be downloaded or run online from several sites, including:
http://www.robotgear.com.au/Article.aspx/Details?title=PEBBLE   (shown below)

If you are using it at home, it runs faster if you download and extract it.
There are different versions for using Internet Explorer and Firefox.

Creating a breadboard layout

- Select the desired type of breadboard (Shown below is: 50R, Dual BB 2Pwr & Red Ind @ top)
- Select desired component then drag it to the desired location.
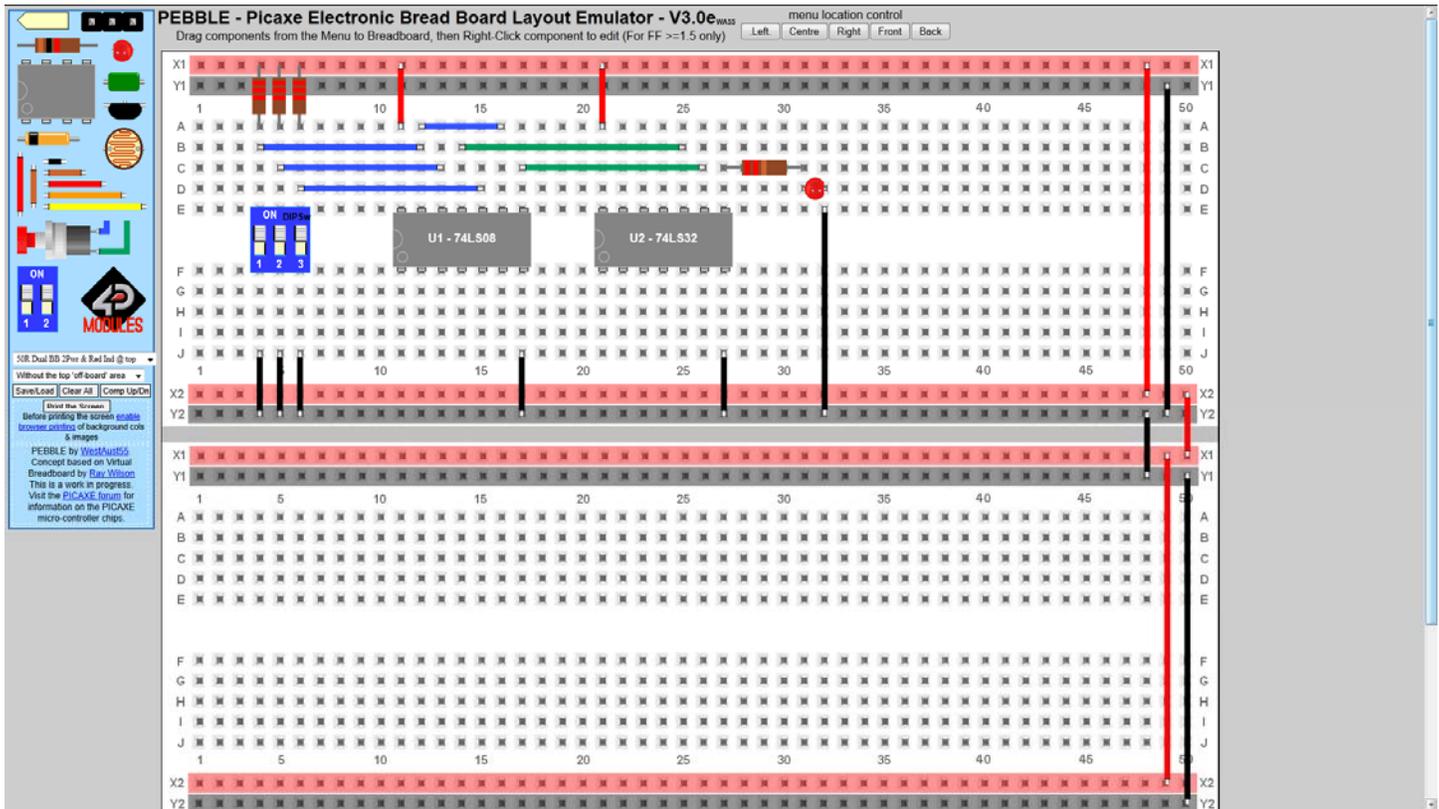
- Right-click on a component to change its properties. For example, the property boxes below appear if you right click on a wire, IC, resistor, or DIP switch.
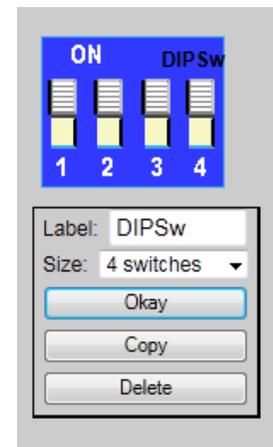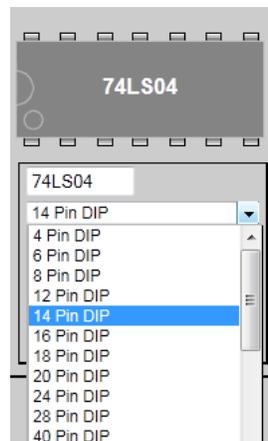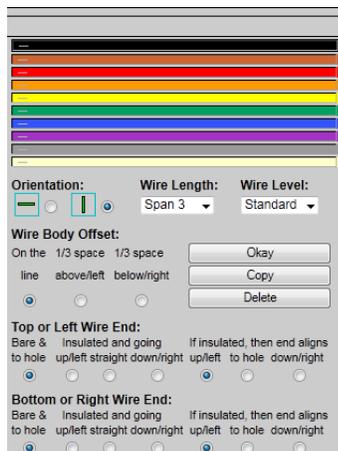
Saving a Breadboard Layout

- Select the Save/Load button
- Copy the instructions into NotePad and save for future use (Pebble Sample Program.txt in this case)

To **Save**: Copy and paste all text below into a text editor and save it.
To **Load**: Paste previously saved text into this text area and click "Load Circuit".

```
IC||256|732|1|MicroStamp11|U?|||DIP20|IC||DIP20_1
IC||688|732|1|7-Segment Display LSD3221|U?|||DIP14|IC||DIP14_1
Wire||47|17|21||11|#FF0000|16|11||10|
Wire||74|44|21||11|#000000|16|11||10|
Wire||1371|456|21||11|#FF0000|3|11||10|
Resistor|220|591|613|1|Resistor|R?||3||IC||
Wire||1317|484|21||11|#000000|3|11||10|
IC||40|842|1|USB2MCU|U?|||DIP14|IC||DIP14_1
Wire||209|704|21||11|#3253FF|4|11||10|
Wire||211|674|11||11|#3253FF|2|11||10|
Wire||155|676|21||11|#3253FF|5|11||10|
Wire||157|647|11||11|#3253FF|5|11||10|
Wire||47|539|21||11|#FF0000|10|11||10|
Wire||74|566|21||11|#000000|9|11||10|
LED|0|103|636|3|LED|LED?|1|||IC||led_13
Wire||101|539|21||11|#FF0000|3|11||10|
Wire||128|566|21||11|#000000|2|11||10|
Wire||479|539|21||11|#FF0000|3|11||10|
Wire||506|566|21||11|#000000|2|11||10|
Resistor|220|564|668|1|Resistor|R?||3||IC||
Wire||319|647|11||11|#FFFF00|10|11||10|
Wire||346|702|11||11|#FFFF00|8|11||10|
Wire||670|647|11||11|#FFFF00|7|11||10|
Wire||1371|566|21||11|#000000|16|11||10|
Wire||1344|539|21||11|#FF0000|16|11||10|
BREADBOARDSTYLE=BB45
```

Cancel   Load Circuit

Sample Pebble Breadboard Layout - Notepad

File Edit Format View Help

```
IC||256|732|1|MicroStamp11|U?|||DIP20|IC||DIP20_1
IC||688|732|1|7-Segment Display LSD3221|U?|||DIP14|IC||DIP14_1
Wire||47|17|21||11|#FF0000|16|11||10|
Wire||74|44|21||11|#000000|16|11||10|
Wire||1371|456|21||11|#FF0000|3|11||10|
Resistor|220|591|613|1|Resistor|R?||3||IC||
Wire||1317|484|21||11|#000000|3|11||10|
IC||40|842|1|USB2MCU|U?|||DIP14|IC||DIP14_1
Wire||209|704|21||11|#3253FF|4|11||10|
Wire||211|674|11||11|#3253FF|2|11||10|
Wire||155|676|21||11|#3253FF|5|11||10|
Wire||157|647|11||11|#3253FF|5|11||10|
Wire||47|539|21||11|#FF0000|10|11||10|
Wire||74|566|21||11|#000000|9|11||10|
LED|0|103|636|3|LED|LED?|1|||IC||led_13
Wire||101|539|21||11|#FF0000|3|11||10|
Wire||128|566|21||11|#000000|2|11||10|
Wire||479|539|21||11|#FF0000|3|11||10|
Wire||506|566|21||11|#000000|2|11||10|
Resistor|220|564|668|1|Resistor|R?||3||IC||
Wire||319|647|11||11|#FFFF00|10|11||10|
Wire||346|702|11||11|#FFFF00|8|11||10|
Wire||670|647|11||11|#FFFF00|7|11||10|
Wire||1371|566|21||11|#000000|16|11||10|
Wire||1344|539|21||11|#FF0000|16|11||10|
BREADBOARDSTYLE=BB45
SHOWTHETOPAREA=false
```

Loading a Breadboard Layout

- Launch Pebble
- Select the **Save/Load** Button
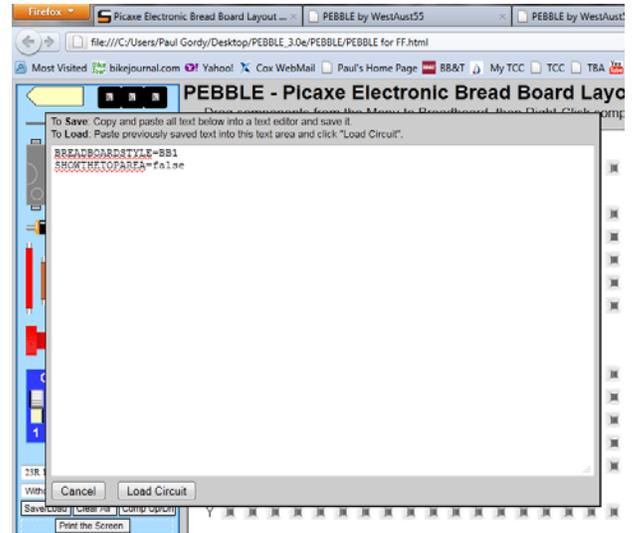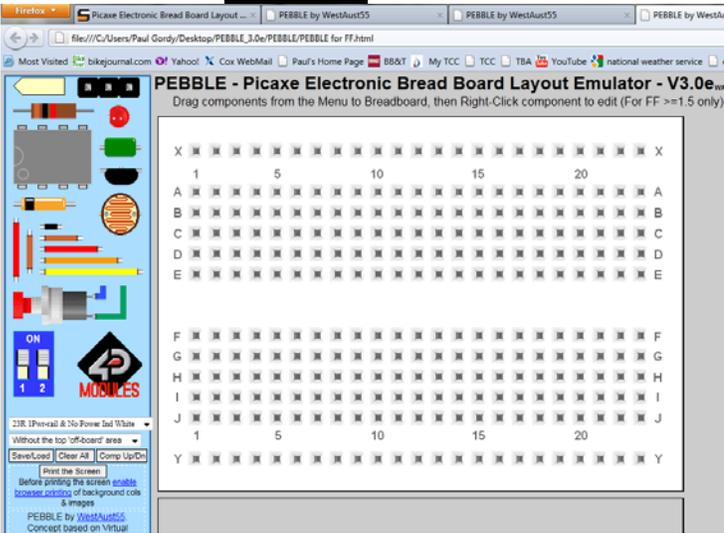
- Open your existing breadboard layout instructions using NotePad and copy them into the Load instructions area in Pebble.
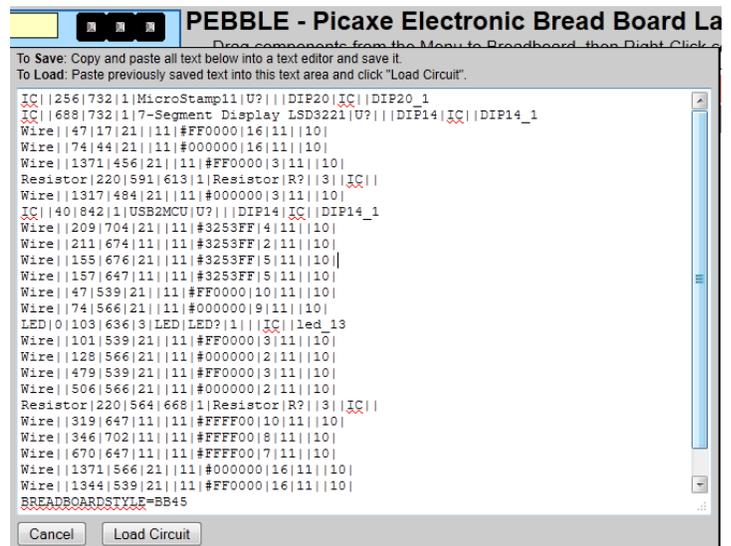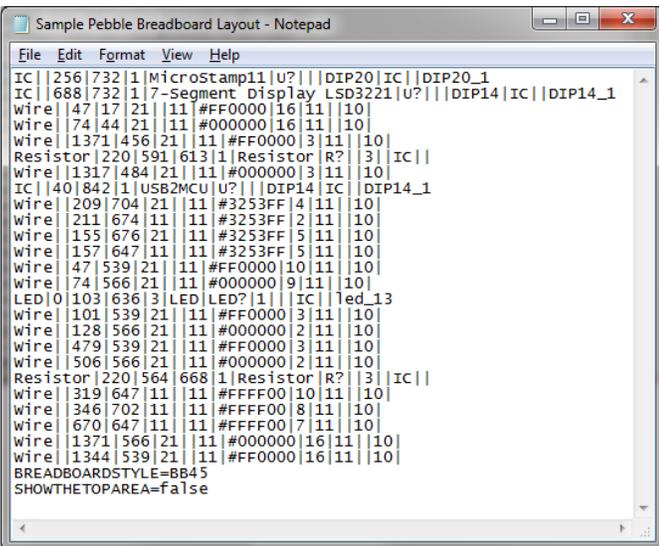
- Select **Load Circuit**
- At the prompt "Clear All Components", select **Yes**.
- Your breadboard layout should now appear.