This Appendix shows you what hardware and tools you will need for each chapter of this book. The Miscellaneous section has hardware that you will need in most chapters of this book. This Appendix will tell you the product number, company that makes the product, website of the company, the cost of the product (subject to change), and a brief description of the product. Here is the hardware you will need for this book:

<table>
<thead>
<tr>
<th>Part Number</th>
<th>Company</th>
<th>Website</th>
<th>Cost ($)</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>275-1548</td>
<td>Radio Shack</td>
<td><a href="http://www.radioshack.com">www.radioshack.com</a></td>
<td>3.69</td>
<td>Pushbutton Normally- Closed Momentary Switch (4-pack)</td>
</tr>
<tr>
<td>278-1224</td>
<td>Radio Shack</td>
<td><a href="http://www.radioshack.com">www.radioshack.com</a></td>
<td>7.39</td>
<td>22AWG Hookup wire</td>
</tr>
<tr>
<td>275-406</td>
<td>Radio Shack</td>
<td><a href="http://www.radioshack.com">www.radioshack.com</a></td>
<td>2 x 3.19</td>
<td>SPST slide switch</td>
</tr>
<tr>
<td>PRT-09518</td>
<td>Sparkfun</td>
<td><a href="http://www.sparkfun.com">www.sparkfun.com</a></td>
<td>2.95</td>
<td>9v to Barrel jack adapter</td>
</tr>
<tr>
<td>PRT-10265</td>
<td>Sparkfun</td>
<td><a href="http://www.sparkfun.com">www.sparkfun.com</a></td>
<td>9.95</td>
<td>9v LI-Ion battery charger</td>
</tr>
<tr>
<td>PRT-10053</td>
<td>Sparkfun</td>
<td><a href="http://www.sparkfun.com">www.sparkfun.com</a></td>
<td>2 x 4.95</td>
<td>9v Li-ion battery</td>
</tr>
<tr>
<td>270-324</td>
<td>Radio Shack</td>
<td><a href="http://www.radioshack.com">www.radioshack.com</a></td>
<td>2.99</td>
<td>9v snap connectors</td>
</tr>
</tbody>
</table>

Chapter 1 Hardware

<table>
<thead>
<tr>
<th>Part Number</th>
<th>Company</th>
<th>Website</th>
<th>Cost ($)</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>DEV-10812</td>
<td>Sparkfun</td>
<td><a href="http://www.sparkfun.com">www.sparkfun.com</a></td>
<td>49.99</td>
<td>Arduino and LabVIEW bundle</td>
</tr>
<tr>
<td>COM-09592</td>
<td>Sparkfun</td>
<td><a href="http://www.sparkfun.com">www.sparkfun.com</a></td>
<td>0.35</td>
<td>Green LED</td>
</tr>
</tbody>
</table>

Chapter 3 Hardware
## APPENDIX A  ■ HARDWARE AND TOOLS

### Chapter 4
**Hardware**

<table>
<thead>
<tr>
<th>Part Number</th>
<th>Manufacturer</th>
<th>Website</th>
<th>Price</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>DEV-09815</td>
<td>Sparkfun</td>
<td><a href="http://www.sparkfun.com">www.sparkfun.com</a></td>
<td>24.95</td>
<td>Motor driver shield</td>
</tr>
<tr>
<td>PRT-10007</td>
<td>Sparkfun</td>
<td><a href="http://www.sparkfun.com">www.sparkfun.com</a></td>
<td>8 X 1.50</td>
<td>Stackable Header kits</td>
</tr>
</tbody>
</table>

**Chapter 5**
**Hardware**

<table>
<thead>
<tr>
<th>Part Number</th>
<th>Manufacturer</th>
<th>Website</th>
<th>Price</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>LCD-00709</td>
<td>Sparkfun</td>
<td><a href="http://www.sparkfun.com">www.sparkfun.com</a></td>
<td>15.95</td>
<td>White on Black LCD</td>
</tr>
<tr>
<td>LCD-09363</td>
<td>Sparkfun</td>
<td><a href="http://www.sparkfun.com">www.sparkfun.com</a></td>
<td>39.95</td>
<td>Color LCD shield</td>
</tr>
<tr>
<td>497-2936-5-ND</td>
<td>DigiKey</td>
<td><a href="http://www.digiKey.com">www.digiKey.com</a></td>
<td>4.7</td>
<td>H-bridge</td>
</tr>
<tr>
<td>296-3542-5-ND</td>
<td>DigiKey</td>
<td><a href="http://www.digiKey.com">www.digiKey.com</a></td>
<td>0.60</td>
<td>Hex Inverter</td>
</tr>
<tr>
<td>COM-08653</td>
<td>Sparkfun</td>
<td><a href="http://www.sparkfun.com">www.sparkfun.com</a></td>
<td>3.95</td>
<td>Keypad</td>
</tr>
<tr>
<td>276-003</td>
<td>Radio Shack</td>
<td><a href="http://www.radioshack.com">www.radioshack.com</a></td>
<td>8.99</td>
<td>medium solderless breadboard</td>
</tr>
<tr>
<td>276-002</td>
<td>Radio Shack</td>
<td><a href="http://www.radioshack.com">www.radioshack.com</a></td>
<td>14.99</td>
<td>large solderless breadboard</td>
</tr>
<tr>
<td>276-1388</td>
<td>Radio Shack</td>
<td><a href="http://www.radioshack.com">www.radioshack.com</a></td>
<td>3 X 2.39</td>
<td>Terminal blocks</td>
</tr>
<tr>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>.01microF ceramic capacitors</td>
</tr>
</tbody>
</table>

**Chapter 6**
**Hardware**

<table>
<thead>
<tr>
<th>Part Number</th>
<th>Manufacturer</th>
<th>Website</th>
<th>Price</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>GPS-00465</td>
<td>Sparkfun</td>
<td><a href="http://www.sparkfun.com">www.sparkfun.com</a></td>
<td>59.95</td>
<td>GPS Module</td>
</tr>
<tr>
<td>GPS-10710</td>
<td>Sparkfun</td>
<td><a href="http://www.sparkfun.com">www.sparkfun.com</a></td>
<td>16.95</td>
<td>GPS Shield</td>
</tr>
<tr>
<td>DEV-09802</td>
<td>Sparkfun</td>
<td><a href="http://www.sparkfun.com">www.sparkfun.com</a></td>
<td>14.95</td>
<td>microSD Shield</td>
</tr>
<tr>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>512mb microSD card</td>
</tr>
</tbody>
</table>

**Chapter 6**
**Hardware**

<table>
<thead>
<tr>
<th>Part Number</th>
<th>Manufacturer</th>
<th>Website</th>
<th>Price</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>WRL-10393</td>
<td>Sparkfun</td>
<td><a href="http://www.sparkfun.com">www.sparkfun.com</a></td>
<td>39.95</td>
<td>Bluetooth Mate Silver</td>
</tr>
<tr>
<td>PRT-00553</td>
<td>Sparkfun</td>
<td><a href="http://www.sparkfun.com">www.sparkfun.com</a></td>
<td>4 X 1.95</td>
<td>Male Headers</td>
</tr>
<tr>
<td>BOB-08745</td>
<td>Sparkfun</td>
<td><a href="http://www.sparkfun.com">www.sparkfun.com</a></td>
<td>1.95</td>
<td>Logic Level Converter</td>
</tr>
<tr>
<td>SEN-10167</td>
<td>Sparkfun</td>
<td><a href="http://www.sparkfun.com">www.sparkfun.com</a></td>
<td>9.95</td>
<td>Humidity and temp sensor</td>
</tr>
<tr>
<td>SEN-09375</td>
<td>Sparkfun</td>
<td><a href="http://www.sparkfun.com">www.sparkfun.com</a></td>
<td>6.95</td>
<td>Force Sensitive Resistor</td>
</tr>
<tr>
<td>SEN-09418</td>
<td>Sparkfun</td>
<td><a href="http://www.sparkfun.com">www.sparkfun.com</a></td>
<td>5.95</td>
<td>Digital Temp Sensor</td>
</tr>
<tr>
<td>Code</td>
<td>Vendor</td>
<td>Website</td>
<td>Price</td>
<td>Description</td>
</tr>
<tr>
<td>------------</td>
<td>--------------</td>
<td>------------------------------</td>
<td>--------</td>
<td>------------------------------</td>
</tr>
<tr>
<td>SEN-10289</td>
<td>Sparkfun</td>
<td><a href="http://www.sparkfun.com">www.sparkfun.com</a></td>
<td>1.95</td>
<td>Tilt sensor</td>
</tr>
<tr>
<td>SEN-10264</td>
<td>Sparkfun</td>
<td><a href="http://www.sparkfun.com">www.sparkfun.com</a></td>
<td>7.95</td>
<td>Flex Sensor</td>
</tr>
<tr>
<td>PRT-07916</td>
<td>Sparkfun</td>
<td><a href="http://www.sparkfun.com">www.sparkfun.com</a></td>
<td>3.95</td>
<td>Mini proto board</td>
</tr>
<tr>
<td>SEN-09088</td>
<td>Sparkfun</td>
<td><a href="http://www.sparkfun.com">www.sparkfun.com</a></td>
<td>2 X 1.50</td>
<td>Photoresistor</td>
</tr>
<tr>
<td>270-1805</td>
<td>Radio Shack</td>
<td><a href="http://www.radioshack.com">www.radioshack.com</a></td>
<td>3.99</td>
<td>Medium Enclosure</td>
</tr>
</tbody>
</table>

**Chapter 7 Hardware**

<table>
<thead>
<tr>
<th>Code</th>
<th>Vendor</th>
<th>Website</th>
<th>Price</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>910-28015A</td>
<td>Parallax</td>
<td><a href="http://www.parallax.com">www.parallax.com</a></td>
<td>39.99</td>
<td>Ping))) with bracket kit</td>
</tr>
<tr>
<td>COM-07950</td>
<td>Sparkfun</td>
<td><a href="http://www.sparkfun.com">www.sparkfun.com</a></td>
<td>1.95</td>
<td>Buzzer</td>
</tr>
<tr>
<td>276-003</td>
<td>Radio Shack</td>
<td><a href="http://www.radioshack.com">www.radioshack.com</a></td>
<td>8.99</td>
<td>Medium size breadboard</td>
</tr>
<tr>
<td>270-326</td>
<td>Radio Shack</td>
<td><a href="http://www.radioshack.com">www.radioshack.com</a></td>
<td>2 X 1.19</td>
<td>9v battery holder</td>
</tr>
</tbody>
</table>

**Chapter 8 Hardware**

<table>
<thead>
<tr>
<th>Code</th>
<th>Vendor</th>
<th>Website</th>
<th>Price</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>270-1807</td>
<td>Radio Shack</td>
<td><a href="http://www.radioshack.com">www.radioshack.com</a></td>
<td>7.39</td>
<td>Large enclosure</td>
</tr>
<tr>
<td>270-1805</td>
<td>Radio Shack</td>
<td><a href="http://www.radioshack.com">www.radioshack.com</a></td>
<td>3.99</td>
<td>Medium enclosure</td>
</tr>
</tbody>
</table>

**Chapter 9 Hardware**

<table>
<thead>
<tr>
<th>Code</th>
<th>Vendor</th>
<th>Website</th>
<th>Price</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>CEL-09607</td>
<td>Sparkfun</td>
<td><a href="http://www.sparkfun.com">www.sparkfun.com</a></td>
<td>99.95</td>
<td>GSM Shield</td>
</tr>
<tr>
<td>CEL-00675</td>
<td>Sparkfun</td>
<td><a href="http://www.sparkfun.com">www.sparkfun.com</a></td>
<td>7.95</td>
<td>Antenna Wall adapter for Arduino</td>
</tr>
<tr>
<td>TOL-00298</td>
<td>Sparkfun</td>
<td><a href="http://www.sparkfun.com">www.sparkfun.com</a></td>
<td>5.95</td>
<td>Cheap T-Mobile prepaid phone</td>
</tr>
<tr>
<td>N/A</td>
<td>CVS</td>
<td><a href="http://www.cvs.com">www.cvs.com</a></td>
<td>19.99</td>
<td></td>
</tr>
</tbody>
</table>

**Chapter 10 Hardware**

<table>
<thead>
<tr>
<th>Code</th>
<th>Vendor</th>
<th>Website</th>
<th>Price</th>
<th>Description</th>
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</table>

**Chapter 11 Hardware**

<table>
<thead>
<tr>
<th>Code</th>
<th>Vendor</th>
<th>Website</th>
<th>Price</th>
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</tr>
</thead>
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<tr>
<td>187</td>
<td>Adafruit</td>
<td><a href="http://www.adafruit.com">www.adafruit.com</a></td>
<td>6.00</td>
<td>DIY Shield</td>
</tr>
</tbody>
</table>
## Tools for this Book

<table>
<thead>
<tr>
<th>Item</th>
<th>Supplier</th>
<th>URL</th>
<th>Price</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>64-083</td>
<td>Radio Shack</td>
<td><a href="http://www.radioshack.com">www.radioshack.com</a></td>
<td>17.99</td>
<td>Wire Strippers</td>
</tr>
<tr>
<td>TOL-10029</td>
<td>Sparkfun</td>
<td><a href="http://www.sparkfun.com">www.sparkfun.com</a></td>
<td>3.95</td>
<td>Wire cutters</td>
</tr>
<tr>
<td>TOL-09146</td>
<td>Sparkfun</td>
<td><a href="http://www.sparkfun.com">www.sparkfun.com</a></td>
<td>0.95</td>
<td>Flat-head screw driver</td>
</tr>
<tr>
<td>TOL-00080</td>
<td>Sparkfun</td>
<td><a href="http://www.sparkfun.com">www.sparkfun.com</a></td>
<td>3.95</td>
<td>Phillips screw driver set</td>
</tr>
<tr>
<td>TOL-00082</td>
<td>Sparkfun</td>
<td><a href="http://www.sparkfun.com">www.sparkfun.com</a></td>
<td>3.95</td>
<td>Soldering Vacuum</td>
</tr>
<tr>
<td>64-2071</td>
<td>Radio Shack</td>
<td><a href="http://www.radioshack.com">www.radioshack.com</a></td>
<td>10.99</td>
<td>Soldering iron</td>
</tr>
<tr>
<td>64-002</td>
<td>Radio Shack</td>
<td><a href="http://www.radioshack.com">www.radioshack.com</a></td>
<td>4 X 3.89</td>
<td>Solder</td>
</tr>
<tr>
<td>N/A</td>
<td>Dremel</td>
<td><a href="http://www.dremel.com">www.dremel.com</a></td>
<td>N/A</td>
<td></td>
</tr>
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</table>
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