

Team Name: Rotating Dynamometer

Team Number: P17665

| I. Identify & Select Problem – PSP Step 1  |
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| Seeing microvolts out of Wheatstone configuration instead of millivolts which is too low of an output signal.  |
| II. Analyze Problem – PSP Step 2   |
| <ol style="list-style-type: none"><li>1. Unreliable solder joints</li><li>2. Broken wires</li><li>3. Broken Strain gauges</li><li>4. Rigid structure</li><li>5. Improper adhesive/mounting application</li><li>6. Location of strain gauges</li><li>7. Too much solder</li></ol> |
| III. Generating Potential Solutions – PSP Step 3   |
| <ol style="list-style-type: none"><li>1. Change amplifier circuitry to amplify microvolts</li><li>2. Change load experiment<ol style="list-style-type: none"><li>1. Dynamic load instead of static</li></ol></li><li>3. Re-wiring Wheatstone configuration</li></ol>             |
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| IV. Selecting & Planning the Solution – PSP Step 4   |
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| <ol style="list-style-type: none"><li>1. Rotational load experiment</li><li>2. Re-affirm that strain gauges are mounted correctly.</li><li>3. If 1 or 2 don't work, look towards amplifier.</li><li>4. Contacted Paul &amp; Sharif for potential solutions<ol style="list-style-type: none"><li>1. Currently waiting on response</li></ol></li></ol> |
| V. Implementing Solution – PSP Step 5  |
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| VI. Evaluating Solution – PSP Step 6   |
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