## Job Description Form

**Division/Department:** ENGINEERING  
**Location:** CYPRESS  
**Job Title:** INTERN, ELECTRICAL ENGINEER  
**Reports to:** DIRECTOR OF ENGINEERING  

<table>
<thead>
<tr>
<th>Level/Grade:</th>
<th>Type of position:</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>N/A</td>
<td>INTERN</td>
<td>12 to 40 / week</td>
</tr>
</tbody>
</table>

### JOB SUMMARY:

The electrical engineer intern will assist other engineers and participate in projects involving state of the art soldering and rework systems in conduction and convection technologies, and fluid dispensing systems. The job requires at least 3 years of course work be completed towards a bachelor’s degree in electrical engineering. Course work or experience with several of the following is desired: digital and analog circuits, power supplies, power conversion, microcontroller based circuits, optical, electromechanical and motion control subsystems.

40 hours/week desired for the summer and minimum 12 hour/week while school is in session. Normal work hours are 8am to 5pm. Exact days and hours can be arranged to match your class schedule. Exceptions for mid-terms and finals can be pre-arranged.

### JOB DUTIES

- Takes direction from engineers for the completion or contribution to design and development of new products based on performance specifications. Receives task assignments, clarifies ambiguous requests and completes the tasks.
- Assembles and tests electronic assemblies.
- Prepares and submits test reports that includes reporting data, compiling statistics on the data, and forming conclusions.
- Prepares and submits periodic status reports.
- Performs non-engineering related duties as requested (for example, cleaning and organizing the lab)
- Confer with engineers and others (cross-functionally) to discuss and clarify tasks and results.
- Perform calculations to compute and establish manufacturing test standards and specifications.
- Familiarity with embedded processor/controller programming (PIC controllers). Ability to generate pseudo-code for direct translation into microcontrollers. Ability to program in C a plus.
- Investigate and test vendors' and competitors' products.
- Compile data and write reports regarding existing and potential engineering studies and projects.
- Coordinate with marketing, technical services & customers, to conduct product testing.
- Prepare test procedures or work instructions to be used during manufacturing processes.
- Support existing products for sustaining engineering activities.
**EDUCATION REQUIREMENTS**

3 years of course work completed towards a bachelor’s degree in electrical engineering. Course work or experience with several of the following is desired: digital and analog circuits, power supplies, power conversion, microcontroller based circuits, optical, electromechanical and motion control subsystems. Work experience with electronics a plus. Must possess strong communication, interpersonal, organizational and teamwork skills.

**SKILLS REQUIRED**

**Technical Skills**
- Experience with electronics design, development and testing in a lab environment.
- Strong analytical and logical problem solving skills
- Experience with PCB design a plus
- Experience with power supply designs, switch mode power conversion a plus.
- Analyzing data / information
- Electronic circuit design
- Debugging of prototypes
- Analog and digital circuit design
- Control loop theory, understanding of analog and digital PID loop control
- Ability to read, analyze and interpret technical publications, professional journals and governmental regulations

**Other**
- Sound judgment
- Strong communication skills
- High level of creativity and inventiveness
- Ability to work in both a team and as an individual, under time pressures
- Interaction/synergies available between electronics, software and mechanics
- Must be energetic, independent and self-motivated.

**WORK EXPERIENCE REQUIREMENTS**

3 years of course work completed towards a bachelor’s degree in electrical engineering. Course work or experience with several of the following is desired: digital and analog circuits, power supplies, power conversion, microcontroller based circuits, optical, electromechanical and motion control subsystems. Work experience with electronics a plus. Must possess strong communication, interpersonal, organizational and teamwork skills.

**ESSENTIAL PHYSICAL JOB REQUIREMENTS/WORKING CONDITIONS:**

Typical office and lab environment.

<table>
<thead>
<tr>
<th>RARLEY (1-10%)</th>
<th>OCCASSIONALLY (11-33%)</th>
<th>FREQUENTLY (34-66%)</th>
<th>CONTINUOUSLY (67%+)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sitting:</td>
<td>Continuously</td>
<td>Kneeling:</td>
<td>Rarely</td>
</tr>
<tr>
<td>Standing:</td>
<td>Frequently</td>
<td>Climbing:</td>
<td>Rarely</td>
</tr>
<tr>
<td>Bending:</td>
<td>Occassionally</td>
<td>Reaching:</td>
<td>Occassionally</td>
</tr>
<tr>
<td>Lifting:</td>
<td>Occassionally</td>
<td>Grasping/Handling:</td>
<td>Occassionally</td>
</tr>
<tr>
<td>Turning/Twisting:</td>
<td>Rarely</td>
<td>Squatting:</td>
<td>Rarely</td>
</tr>
<tr>
<td>EEO Job Category/Group:</td>
<td>Revision #:</td>
<td>Date:</td>
<td></td>
</tr>
<tr>
<td>------------------------</td>
<td>-------------</td>
<td>------</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Department Manager:</td>
<td>Title:</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Next Level Manager:</td>
<td>Title:</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>