Automated Aquatic Center
Team 7

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Automated Aquatic Center

• Purpose of Product – AAC will be a central information hub and partial regulator for all fresh water home and commercial aquatic tanks.
  • Automatic temperature monitoring and control
  • Automatic feeder system
  • Automatic ambient lighting control

• Market: USA
Key Requirements

- **Cost**
  - Sales Price: $120
  - Component Cost: $80
  - Assembly/Test Costs: $10

- **Environment**
  - Indoor
  - Operating Temp Range: 15°C to 35°C
  - Operating Humidity Range: 0 to 100%

- **Power Input(s)**
  - Residential AC Power: 102 – 132 VAC @ 5 Amps Max

- **Major Functions, Quantities Measured, Displayed**
  - *Feeder: Cycle Lengths: ¼, ½, 3/4, 1 set by User*

<table>
<thead>
<tr>
<th>Sensing</th>
<th>Unit</th>
<th>Accuracy</th>
<th>Range</th>
<th>Update Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>pH</td>
<td>pH</td>
<td>+/- 0.1 pH</td>
<td>1.0 - 14.0</td>
<td>&lt; 5min</td>
</tr>
<tr>
<td>Salinity</td>
<td>ppt</td>
<td>+/- 0.004 ppt</td>
<td>1.0 - 1.05 ppt</td>
<td>5 seconds</td>
</tr>
<tr>
<td>Temp</td>
<td>C</td>
<td>+/- 1.0</td>
<td>0 - 35</td>
<td>30 seconds</td>
</tr>
<tr>
<td>Light</td>
<td>Lux</td>
<td>+/- 10%</td>
<td>0 - 273</td>
<td>10 seconds</td>
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