R&V Exercise  (35 minutes)

• Form groups of 3.

• Select 1 problem per group.
## Requirements

- Draw 2 column table
  - List requirements in left column
- Break down high level goals, e.g.,
  - *portability* ⇒ *weight, size, and battery life*
- Give **quantitative** measures of success
  - (with acceptable ranges), e.g.,
    - $5V \pm 0.5V$ for a current load up to $100mA$
- Design Requirements ≠ Purchase Requirements

<table>
<thead>
<tr>
<th>R</th>
<th>Requirement1</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Requirement2</td>
</tr>
<tr>
<td></td>
<td>Requirement3</td>
</tr>
<tr>
<td>etc.</td>
<td></td>
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</tbody>
</table>
Verification

• List verifications in the right column.

Provide a detailed set of instructions describing how to verify the requirement has been satisfied.

• Describe experimental procedure, e.g.,
  
  • What instruments will be used?
  • How will the instruments be configured?
  • How will the results be presented?

• Be Explicit. Any qualified engineer should be able to follow these instructions without prior knowledge of the design.
Peer Evaluation

• Find 6 groups and form a circle of 18 people.

• In a clockwise direction, each group will present their 3 most important R&V.

• Provide constructive feedback for improvements.
  
  • requirements relevant to high level objective?
  • requirements satisfied by purchase or design?
  • R&V too vague or not feasible?

11 minutes