Verification

- Autonomous operation – will it respond consistently and as expected without intervention?
- Robustness – working consistently under rougher conditions, variations in expected inputs, etc
  - Repeated measurements for consistency separates tests from demo
- Reliability – will the device break after many operation cycles?
- Repeatability – will it work many times in the same way?
- Rubric:
  - Developing: Do you at least have a plan?
    - Standards/codes are not always necessary but you need to make sure your tests make sense
  - Developed: When you have a plan, put it in motion
  - High quality: Now that you have your data, interpret it – what does it mean for your design?
    - Insights gained should enhance your understanding of the design concept
- Systematic testing:
  - Have a plan
  - Record results in detail
  - Repeat testing
    - Confirm the validity of your tests early on
  - Interpret results
- What to test?
  - Recognize that your prototype is not the same as your design concept
  - Try to connect tests using proxies to the high-level requirements
  - Test according to specification

Visual Abstract

- A series of figures with connecting text, or even visual only – figures should tell the whole story
- Provide a brief and engaging summary of the outcomes (less of the process)
- Focus on the design concept, the framing, the values provided
- Focus on either or both of the concept and the prototype (the prototype that you actually built, not the ones that didn't work out)
- Only one page but we can have multiple figures with connecting text
- Avoid:
  - Drawings that are more artistic than informative
    - Is everything communicating something?
    - Have someone look at the visual and then tell you what they're learning from it
  - Generic visuals of electromechanical components
    - Don't just put in generic engineering-y images
    - Actually show your concept