MTEC 1101 Test Review

:I: Design

A. Design Process {Ideate, Collect/Research, Analyze, Develop/Prototype, Improve/Iterate}
- 3 P's {Pre-Production, Production, Post-Production},

B. Design Thinking & Agile Development
- Human-centered
- Divergent Thinking
- Convergent Thinking
  - Define a Challenge
    - List topics
    - Frame the Problem
    - Keep it Simple
    - Sketch out your goals
    - Establish Constraints
- Agile Development attributes (quick, collaborative, flexible, interchangeable roles)

C: Prototyping {tables of prototypes}
- Concept Prototype
- Horizontal Prototype
- Vertical Prototype
- Interaction Storyboard
- Storyboard
- Wireframe
- MockUp
- Sketch

Production Tools (Phototshop, Illustrator, Lucid Chart)

II: Computation

Vocabulary:
- Breadboard
- Interactive Development Environment
- Arduino
- Processing

Design Documents:
- Component Diagram
- Flow Chart {Input, Output, Process, Decision, Start/End}

Production Tools (Arduino, Processing, GitHub)

III: Tangible

Vocabulary:
- Millimeter
- Scaled drawing
- Caliper
- Plane

Technical Drawing
- Views {top, side, bottom, front}
- Isometric View
- Orthographic View

Dimensioning
- Chained Dimensioning
- Parallel Dimensioning
- Combined Dimensioning

Production Tools
- Onshape