Working Drawings

- Working Drawings Packet
  - Assembly Drawings
    - Assembled
    - Exploded
  - Detail Drawings of Non-standard parts
- Bill of Materials
Bill of Materials

- Table
- Number Bubbles
- Descriptions
- Quantity
Working Drawings Packet

- Assembled View
- Exploded View
- Bill of Materials
- Detail Drawings
  - Non Standard Parts
- Communication Tool
  - Engineer to Manufacturer

Let's use a simple flashlight as an example to construct complete working drawings for a product.
Working Drawings: Flashlight

Assembly Drawings with Bill of Materials (BOM), exploded views, and section views
Working Drawings: Flashlight

Detailed drawings for all non-standard parts
SolidWorks Bill of Materials

- Bill of Materials is created inside of the Drawing file
- The Exploded View created in the Assembly can be used to show the bill of materials
Bill of Materials can be added to an Assembly Drawing by selecting the **Tables** function under the Annotation Tab.

1. Select Bill of Materials
2. Then select the Exploded View image to produce drop down B.O.M table to the left
3. Click on the green arrow in the B.O.M table
4. Place the BOM (Bill of Materials) in the bottom right corner above the Title Block (the Description Column can be deleted by left clicking on the top of the C column, right clicking and selecting delete/column).
SolidWorks Bubbles

Bubbles are used to callout part numbers in association with the Bill of Materials.

- Manual Balloons are placed by the user.
- Auto Balloons are placed by SolidWorks but can be adjusted by the user.
- Magnetic Line is used to constrain the balloons to a user defined imaginary line.

Bubbles are used to callout part numbers in association with the Bill of Materials.
Working Drawings Wrap Up

Working Drawings Packet

• Assembly Drawings

• Detail Drawings of Non-standard parts

Bill of Materials

• Table of Parts

Homework Assignment:

OSU Flashlight Working Drawings

Create a Working Drawings Packet for the OSU Flashlight including:

• Assembled Drawing
• Exploded View with BOM
• Detail Drawings of Non Standard Parts with overall shape dimensions (provide only the Flashlight Main Shaft and Lens)