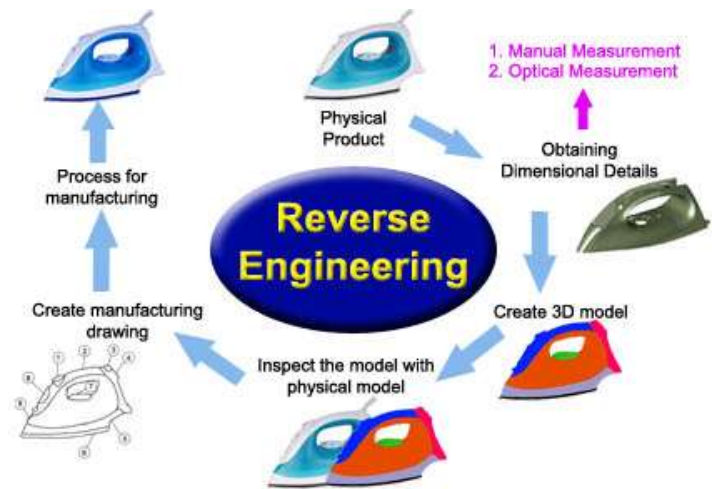


# reverse engineering

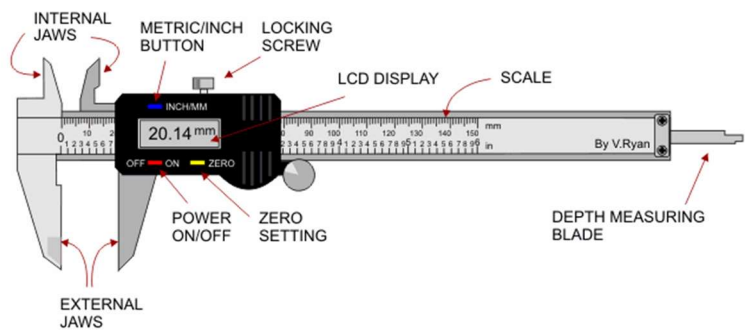
Reverse engineering is taking apart an object to see how it works in order to duplicate or enhance the object.

**Reverse engineering** is the process by which **engineers** create 3D **CAD** models from actual products by measuring the physical object using 3D scanning technologies or by obtaining manual measurements.



## Directions:

Use CAD software (like Tinkercad or Shapeways) to create 3D models of the physical objects you are given. You will turn the .STL files in on Google Classroom. Use the **digital caliper** to take precise measurements of the object.



| Item            | Sketch with dimensions (use mm) & shape list (what shapes did you choose to model the object?) | Check when completed ✓ |
|-----------------|--|------------------------|
| Popsicle stick  |  |                        |
| Washer          |  |                        |
| Hex nut (small) |  |                        |

| Item                 | Sketch with dimensions (use mm) | Check when completed ✓ |
|----------------------|---------------------------------|------------------------|
| Lego brick           |                                 |                        |
| Stop gap (yellow)    |                                 |                        |
| Hex nut (large)      |                                 |                        |
| Stop gap (gray)      |                                 |                        |
| Metal bracket (flat) |                                 |                        |
|                      |                                 |                        |
|                      |                                 |                        |

NUMBER OF OBJECTS COMPLETED IN THE TIME ALLOTTED IN CLASS: \_\_\_\_\_