

# Tolerance Brochure

## Project Overview:

You will be creating a brochure which highlights examples of different tolerances or dimensions.

## Directions:

1. Select a group of sample tolerances from the list below:
  - GD&T Form Tolerances (flatness, cylindricity, roundness, straightness, circularity)
  - GD&T Orientation Tolerances (angularity, perpendicularity, parallelism)
  - bilateral tolerances & limit dimensions
2. Research how your selected tolerances is used and defined.
  - Look for example engineering applications that typically utilize the selected tolerance
  - take notes in the designated space
3. Note three examples of the selected tolerance types in engineering drawings to get an idea of how they are used in industry. *Hint: Many industrial suppliers of components or robotics will provide engineering drawings of the parts they sell.*
4. Design a brochure communicating what you learned about your selected tolerance types. Start assembling your brochure, researching any additional information as necessary. Your brochure must include the following sections:
  - title
  - explanation of what the dimension specifies and how it would appear in an engineering drawing
  - three examples of an example part and the specific feature where specifying this type of tolerance would be appropriate and your justification
  - description of the machine or manufacturing process that would be used to manufacture one of those parts
  - bibliography, with properly cited sources
5. Submit your finished brochure according to your instructor's directions.

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## Research Notes

**Use & Defined**

**Measurement**

**Examples**

**Precision  
Requirements**

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## Rubric

Description	Possible Points	Your Score
<b>Research &amp; Organization:</b> <ul style="list-style-type: none"> <li>• Proper research was conducted to complete the assignment</li> <li>• Sources were cited appropriately based on instructions provided</li> <li>• Information was presented in a logical organized manner</li> </ul>	45	
<b>Concept &amp; Understanding:</b> <ul style="list-style-type: none"> <li>• Understanding of the concept is clearly evident</li> <li>• Effective strategies were used to achieve the end product</li> <li>• Logical thinking was utilized to arrive at the conclusion</li> </ul>	35	
<b>Creativity/Craftmanship:</b> <ul style="list-style-type: none"> <li>• End product is unique and reflects the student's or group's individuality</li> <li>• End product is clearly high quality</li> </ul>	10	
<b>Production/Effort:</b> <ul style="list-style-type: none"> <li>• Class time provided for the project was used efficiently</li> <li>• Time and effort are evident in the execution of the end product</li> </ul>	10	
<b>Total Points</b>	<b>100</b>	

**Additional Comments:**