

### 3D Modeling

AREA	None	Some	Most	Mastery
<b>Presentation</b> Did the student(s) demonstrate a solid understanding of the software for project development?	No understanding of the software for project development.	Some understanding of the basic use of the software for project development.	Competence in the use of software for project development.	Mastery in the use of software for project development.
<b>Documentation</b> Did the student document non-student produced materials?	No required permissions present.	Some required permissions included, but not all.	Most required permissions included.	ALL required permissions present <b>OR</b> no permissions needed.
<b>Software Usage</b> Was the software suitable for the project?	Software used was not appropriate for the project.	Some of the software used was appropriate for the project.	Software used was appropriate and enhanced the project.	Mastery in the choice and use of software to enhance the project.
<b>Project Design</b> Do all elements of the project work together?	Colors, textures and shapes do not work well together.	Some attempt has been made to coordinate colors, textures and shapes.	Colors, textures and shapes have been carefully chosen to lend realism to the project	Mastery in the choice of colors, textures and shapes to create realistic images.
<b>Background Design</b> How well does the project use lighting and shadow techniques?	No lighting or shadows are present in the project.	Some attempt has been made to use lighting and shadow techniques to highlight the project.	Student expanded the use of lighting and shadow techniques in their project.	Mastery in the use of lighting and shadow techniques in the project.
<b>Comments</b>				



## Case Modification

AREA	None	Some	Most	Mastery
<b>Documentation</b> Did the student document non-student produced materials?	No required permissions present.	Some required permissions included, but not all.	Most required permissions included.	ALL required permissions present OR no permissions needed.
<b>Mechanical/Technical</b> Do the hardware components function properly?	Computer will not turn on.	Computer turns on but some other components don't work.	Moderate alterations are present and computer functions properly.	Extensive alterations are present and computer functions properly.
<b>Overall Design</b> What is the overall effect of the design?	No design or theme present.	Design detracts from the theme of the project or does not provide for a theme.	Design enhances the theme of the project and may include use of software to enhance overall design.	Strong consistent theme including the use of software to enhance overall design.
<b>Detailing</b> How much thought was given to the detailing of the case?	No detailing is done.	Little detailing or is poorly done with little or no theme.	Detailing is present and complements the theme.	Extensive detailing that complements and enhances the theme.
<b>Comments</b>				

# Digital Photography

AREA	None	Some	Most	Mastery
<b>Presentation</b> Did the student(s) demonstrate a solid understanding of the software for project development?	No understanding of the software for project development.	Some understanding of the basic use of the software for project development.	Competence in the use of software for project development.	Mastery in the use of software for project development.
<b>Documentation</b> Did the student document non-student produced materials?	No required permissions present.	Some required permissions included, but not all.	Most required permissions included.	ALL required permissions present <b>OR</b> no permissions needed.
<b>Software Usage</b> Was the software suitable for the project?	Software used was not appropriate for the project.	Some of the software used was appropriate for the project.	Software used was appropriate and enhanced the project.	Mastery in the choice and use of software to enhance the project.
<b>Composition</b> How effectively did the student use the principles of composition?	No organization or arrangement apparent with the elements of the picture.	The image(s) are shot in a plain manner, distracting from the composition and leaving image stagnant. Backgrounds are busy or distract from the focus of the image.	Image composition has potential, but other angles, focal lengths and positioning of subjects will improve image.	Strong composition. Images are strong because of layout and placement of camera to model.
<b>Image Quality</b> How clear and focused is the image?	All image(s) are out of focus. Does not apply if lack of focus is artistically intentional.	Some images are slightly out of focus. Does not apply if lack of focus is artistically intentional.	Good quality images with proper exposure.	Outstanding image quality, with proper exposure.

**Comments:**



## Hardware

AREA	None	Some	Most	Mastery
<b>Presentation</b> Did the student(s) demonstrate a solid understanding of the software for project development?	No understanding of how the project was developed.	Some understanding of how the project was developed.	Expanded on how the project was developed.	Demonstrated mastery on how the project was developed.
<b>Documentation</b> Did the student document non-student produced materials?	No required permissions present.	Some required permissions included, but not all.	Most required permissions included.	ALL required permissions present OR no permissions needed.
<b>Appearance</b> What is the overall appearance of the computer?	Computer components are dirty and haphazardly arranged.	Computer components are clean, but haphazardly arranged.	Computer components are clean and arranged.	Computer components are clean and carefully arranged.
<b>Appropriateness</b> Do the components match the purpose of the computer?	No match between the components of the computer and what it was intended to do.	Some components of the computer are matched to what the computer was intended to do.	Most of the components match what the computer was intended to do.	Mastery exhibited in the match of components with what the computer was intended to do.
<b>Operating System</b> How well does the operating system work?	System does not boot up.	System boots up with numerous errors.	System boots up with minimum errors.	System boots up with no errors.
<b>Components</b> Does the computer recognize and access components (floppy, disk drive, CD, etc.)?	System fails to recognize or access any components.	System recognizes and accesses components, but with numerous problems.	System recognizes and accesses components with few problems.	System recognizes and accesses components with no problems.
<b>Operations</b> How many of the seven basic operations can the computer perform? (Input, output, storage, retrieval sending, receiving and processing information.)	No operations performed.	2 – 3 operations performed.	4 – 6 operations performed.	All 7 operations can be performed.

**Comments:**

## Multimedia Applications

AREA	None	Some	Most	Mastery
<b>Presentation</b> Did the student(s) demonstrate a solid understanding of the software for project development?	No understanding of the software for project development.	Some understanding of the basic use of the software for project development.	Competence in the use of software for project development.	Mastery in the use of software for project development.
<b>Documentation</b> Did the student document non-student produced materials?	No required permissions present.	Some required permissions included, but not all.	Most required permissions included.	ALL required permissions present <b>OR</b> no permissions needed.
<b>Software Usage</b> Was the software suitable for the project?	Software used was not appropriate for the project.	Some of the software used was appropriate for the project.	Software used was appropriate and enhanced the project.	Mastery in the choice and use of software to enhance the project.
<b>Project Design</b> Do all elements of the project work together to effectively communicate content and ideas?	Screens are either barren and stark or confusing and cluttered. There is too much or not enough text on each slide. All graphics and special effects are distracting and interfere with the communication of the message.	Screens are somewhat organized. Most of the slides have too much or not enough text. Most graphics and special effects are distracting and interfere with the communication of the message.	Screens are organized. Some of the slides have too much or not enough text. Some graphics and special effects are distracting, but most of the elements and content combine to adequately deliver the message.	Mastery in the combination of multimedia elements and content, reinforcing the message. Special attention is given to balance, proportion, harmony, and restraint of text, graphics and special effects.
<b>Topic/Content</b> Is the topic and content appropriately matched?	Includes no essential information and no facts.	Includes little essential information and one or two facts.	Includes most essential information and three or more facts. Includes enough elaboration to give viewers and understanding of the topic.	Includes all essential information completely and in depth. Viewer has a thorough understanding of the topic and is encouraged to take action, learn more, etc.

**Comments:**



## Non-Multimedia Applications

AREA	None	Some	Most	Mastery
<b>Presentation</b> Did the student(s) demonstrate a solid understanding of the software for project development?	No understanding of the software for project development.	Some understanding of the basic use of the software for project development.	Competence in the use of software for project development.	Mastery in the use of software for project development.
<b>Documentation</b> Did the student document non-student produced materials?	No permissions.	Some required permissions included, but not all.	Most required permissions included.	ALL required permissions present <b>OR</b> no permissions needed.
<b>Software Usage</b> Was the software suitable for the project?	Software used was not appropriate for the project.	Some of the software used was appropriate for the project.	Software used was appropriate and enhanced the project.	Mastery in the choice and use of software to enhance the project.
<b>Project Design</b> Do all elements of the project work together to effectively communicate content and ideas?	Layout is confusing, no design elements, poor choice of font sizes and colors.	Layout has some organization, a few design elements and font sizes and colors are readable.	Layout is organized. Design elements are consistent and support the content message. Font sizes and colors are well chosen.	Layout is masterful, logical and appealing. Design elements enhance and reinforce the content message. Font sizes and colors enhance project.
<b>Graphics</b> Are the visual elements of the project appropriate?	No graphics.	Minimal or distracting graphics, Graphics do not support the topic.	Graphics suit the project and support the topic.	Mastery in the selection and use of graphics. Graphics help communicate the topic and enhance the project.

**Comments:**



## Project Programming

AREA	None	Some	Most	Mastery
<b>Presentation</b> Did the student(s) demonstrate a solid understanding of the software for project development?	No understanding of the software for project development.	Some understanding of the basic use of the software for project development.	Competence in the use of software for project development.	Mastery in the use of software for project development.
<b>Documentation</b> Did the student document non-student produced materials?	No required permissions present.	Some required permissions included, but not all.	Most required permissions included.	ALL required permissions present <b>OR</b> no permissions needed.
<b>Software Usage</b> Was the software suitable for the project?	Software used was not appropriate for the project	Some of the software used was appropriate for the project.	Software used was appropriate and enhanced the project.	Mastery in the choice and use of software to enhance the project.
<b>Execution/Performance</b> How does well does the program perform?	None of the program executes.	Program executes with some errors. Program handles few special cases and little testing has been completed.	Program executes with few errors. Program handles some special cases and some testing has been completed.	Program uses solution that is easy to understand and maintain. Programmer has analyzed many alternate solutions and has chosen the most efficient. Programmer has included the reasons for the solution chosen.
<b>Efficiency</b> How efficient did the operations function to achieve the solution?	Program was not efficient.	Program uses logical solution that is easy to follow but it is not the most efficient. Programmer has considered alternate solutions.	Program uses an efficient and easy to follow solution (no confusing tricks). Programmer has considered alternate solutions and has chosen an efficient one.	Program uses outstanding solution that is easy to understand and maintain. Programmer has analyzed many alternate solutions and has chosen the most efficient.

**Comments:**

## Robotics

AREA	None	Some	Most	Mastery
<b>Presentation</b> Does the student demonstrate a thorough understanding of all design elements of the project?	No understanding of the elements that make up the project.	Some understanding of the elements that make up the project.	Competence in understanding the elements that make up the project.	Mastery in understanding all of the elements that make up the project.
<b>Documentation</b> Did the student document non-student produced materials?	No required permissions present.	Some required permissions included, but not all.	Most required permissions included.	ALL required permissions present <b>OR</b> no permissions needed.
<b>Software Design</b> Was software design efficient and focused on solving the stated task?	No part of the software was focused on the stated task.	Some of the software used was appropriate for the project.	Software used was appropriate and enhanced the project.	Mastery in the choice and use of software to enhance the project.
<b>Hardware Design</b> Were all parts of the design focused on solving the stated task in an efficient manner?	Not part of the machine is focused on solving the stated task.	Project has many non-functional parts or parts that have nothing to do with solving the stated task..	Project has <b>SOME</b> non-functional parts or parts that have nothing to do with solving the stated task..	Entire machine presented a focused and efficient solution for the stated task.
<b>Performance</b> Does machine perform the stated task in an efficient manner?	Project does not perform the stated task.	Project performs but makes many mistakes.	Project performs well with an occasional mistake.	Project performs the stated or intended task flawlessly.
<b>Autonomous</b> Did machine perform task without any human interaction?	Human interaction and/or remote control required to operate machine after start.	Some human interaction needed for machine to accomplish stated task.	Little human interaction needed for machine to accomplish stated task.	No human interaction or remote control required to operate the machine once started.

### **Comments:**

