3-D Printed Keychain

One thing we all have in common is we all have keys for something. Whether for your car, your house or something else, we like to have keychains so we don't misplace them. *(Or at least as easily.)* In this project, you get to 3-D model in Inventor, then 3-D print a unique keychain for yourself. Be creative in your design. Why does your keychain just have to be a keychain? Maybe it is also a cell-phone stand, a tiny LED flashlight, or a tribute to your favorite sports team.

Save both your .ipt and .stl files in the G: 00 KEYCHAINS Folder. Your files should be named in the following format specifically to help streamline printing,
"HOUR-YOUR FIRST AND LAST NAME-KEY CHAIN- COLOR"
(*For example, 4-EVVA DOSSIN-KEY CHAIN-BLUE*)

When complete, render your 3D model in the computer and include it in your on-line portfolio. Once your keychain in printed, be sure to take a picture of it and include alongside of your 3D rendered model in your portfolio.

Originality & Creativity: Is the design unique, interesting or personal? Does the student have a good reason to how/ why they designed what they did?	2	1	0
Product Measurement: Does the final product meet the required size restrictions: Minimum 1.5" x .75" x .5", maximum 2.75" x 2" x 1.75".	2	1	0
Design Efficiency/Functionality: Is the keychain functional? Does it fit in pocket or purse? Is it strong and safe? Are there no thin or sharp points and are there no flaws in the design? Must have a way to attach keys or chain/cord.	2	1	0
Critical Thinking: Did the student follow directions and put strong effort into solving own questions?	2	1	0
Time Management: Did the student use time well during each class period? Did they focus on getting the project done, help others if needed and never distract others?		1	0
File Storage: Did the student save the file as an .ipt and and .stl file correctly in the correct location?		1	0
Total:			**/10 points**

Comments:

Employ planning and time management skills and tools to enhance results and complete work tasks. (b)
Develop goals and objectives.(b1)
Prioritize tasks to be completed. (b2)
Manage file storage. (b23)
Demonstrate use of relational expressions such as equal to, not equal, greater than, less than, etc.(b3)
Describe design constraints, criteria, and trade-offs in regard to variety of conditions (e.g. technology, cost, safety, society, the environment, time, human resources, manufacturability). (a3)
Employ critical thinking and decision-making skills to exhibit qualifications to a potential employer. (c7)