



Fab Lab Essentials

Laser Engraver - Key Chain



Name	Period	Score
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Introduction

There are many ways to solve a problem. Sometimes it is as simple as applying a piece of duct tape. Other times it takes months or years for a product to progress from an idea into full-scale production. Often engineers and designers use a specific set of steps (sometimes called a design process) to find the best solution to a problem.

In this activity your team will act as designers in a company that will be at a tradeshow. Your task is to create an attractive keychain that will be a marketing giveaway item for potential customers to remember your company by. Go to [<https://helpx.adobe.com/illustrator/how-to/design-logo.html?set=illustrator--get-started>]. A design process that progresses from brainstorming to presenting a final design will be used and documented. Each member of the team will have a product to present to the company executives for final approval.

Equipment

- Laptop computer with Photoshop and Illustrator
- Laser Engraver
- Fab Lab Notebook
- Pencil
- Pen

Materials

- 1 6" x 6" piece of acrylic
- 3-4 keyrings
- 3-4 pieces of vinyl adhesive in various colors

Procedure

In a team of three or four, using only the materials provided, design, laser engrave and vector cut an attractive keychain for each member that can be used as a sample for a marketing giveaway. You also need to create a fictional name and logo for your company to be part of your design.

Brainstorm- Each member of the team will draw a minimum three brainstorming ideas for your keychain in your Fab Lab notebook. The more ideas you generate the better. You may handle and inspect the materials and research examples from the internet but you cannot copy anything directly or down load any copy written or trademarked material from the internet.

Design- Sketch an annotated solution in your Fab Lab notebook. The design needs to be such that it can be transferred into Illustrator and made into a vectorable and rasterable file. All changes from your design idea to the actual keychain prototype need to be documented.

Load your files into the appropriate software on the computer attached to the laser engraver you are using and run the file.

Once your Key chain has been engraved add colored vinyl adhesive from the scrap vinyl drawers to the back of your keychain.

When all key chains from your team are complete you will present your design for approval of the large group.

Scoring

Your members in your team will receive points for the following.

Creativity: Up to 15 points for creativity in the design and use of each individuals materials

Teamwork: Up to 10 points for how well your team works together

Performance: Up to 5 points for creating a functional key chain.

Conclusion

1. Why do companies need to use marketing tools such as a keychain?
2. Where else could you incorporate a brainstorming session from your design process during this activity?
3. Do you feel marketing tactics such as key chains are an effective way to promote a company? Explain.
4. What would be a different way that you could mass produce your product if you were to actually manufacture it?