Desk Set Organizer

Team 2
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Challenge 1

• To develop a design loops that can be implemented for this project within a short span of 15 minutes

Design Loops

• A quick survey of various internet sites (Google) gave a number of design steps. The following are some of the sites visited:
  • http://www.technologystudent.com/designprocess/index.html
  • http://www.micron.com/students/engineeringdesign.html
  • http://www.grc.nasa.gov/WWW/usability/processcss.html
  • http://www.brazosportisd.net/prog_services/cate/steps.html
  • http://www.earlsharkley.edu/teaching/courses/10437/designprocess.html
  • http://www.ladderengineering.com/design_guidance.php
  • http://en.wikipedia.org/wiki/Design
Design Loops

• 1: Define
• 2: Research
• 3: Brainstorm
• 4: Vote
• 5: Delegate
• 6: Prototype
• 7: Test
• 8: Refine
• 9: Present

Challenge 2

• Our Group was commissioned to design a desk organizer. This organizer is to hold the necessities such as paper (8.5” x11”), pens/pencils, paper clips but also be expandable and customizable.

Initial Thinking

• A quick brain storming produced a possible list of items that can all form part of desk set. The following slide introduces some of those items.
**Desk Set Items**

- Letter-sized paper holder
- Post-it note dispenser
- Pencil/pen holder
- Paper Clip Holder
- Scotch Tape dispenser
- Eraser
- Pencil Sharpener
- Binder Clips
- Stapler
- Glue Sticks
- Scissors
- Rulers
- Rubber bands
- Letter opener
- Desk Calendar
- Pins
- Photo Holder
- Measuring tape

**Mission Statement**

- To develop the plastic desk set that will have a base unit with some essential ingredients, and also a method of simple attachment using a snap on system together with a number of add-on attachments.

**Snap on arrangement**

- It is decided to go for a snap on arrangement since it is easy as well as low cost.
Design Matrix for Evaluation

<table>
<thead>
<tr>
<th></th>
<th>Option 1</th>
<th>Option 2</th>
<th>Option 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ease of manufacture</td>
<td>Low</td>
<td>High</td>
<td>Medium</td>
</tr>
<tr>
<td>Ease of use</td>
<td>Low</td>
<td>Medium</td>
<td>Medium</td>
</tr>
<tr>
<td>Material compatibility</td>
<td>All materials</td>
<td>All materials</td>
<td>All materials</td>
</tr>
<tr>
<td>Cost</td>
<td>Low</td>
<td>Medium</td>
<td>Medium</td>
</tr>
</tbody>
</table>

Snap option 1

RP Evaluation

- As planned the parts were sent for production, but since the RP Machine in Sinclair had some problem and the vertical build was stopped after ½ inch.
- However the Ventura build was completed, and the report was good. Hence the option was accepted.
Design Options

- It was decided to have a base unit that will have the bare essentials that are required by all
- Unit for letter size paper
- Some of the optional units to be developed are:
  - Pen and pencil holder
  - Pin holder
  - Cell phone holder
  - Photo frame
  - Business card holder
  - Post it notes dispenser
  - Miscellaneous holder (Candies)

Base Unit

Pin Holder