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DEVICE HOLDER PROJECT

Challenge

To design and construct an acrylic device holder using AutoDesk Inventor, MasterCam or V-Carve and the CNC Milling Machine.

Requirements

- 1) The device holder must be able to sit upright on a flat surface.
- 2) The device holder must be capable of holding your device.
- 3) The device holder must not occupy more space than 12cm (wide) x 15cm (high) x 10cm (deep)

Project Outline

- 1) Produce two (2) design sketches of device holders which fit the size parameters and hand them in with your mock-up for evaluation.
- 2) Produce a full-scale cardboard mock-up of your best device holder.
- 3) Virtually design a device holder in Inventor and then generate the G-Code using Mastercam, mill out the parts, and produce an orthographic drawing.
- 4) Use the CNC Mill, bandsaw, disc or belt sander, drill press and buffer to safely manufacture your device holder according to your drawing.
- 5) Complete your Acad drawing and put it with your finished device holder.

Project Evaluation /100

Mock-up /10

- | | |
|---------------------------------|----|
| 1) Correct size/matches sketch | /4 |
| 2) Fits device | /2 |
| 3) Square/good fit | /2 |
| 4) Neat application of hot glue | /2 |

Finished Acrylic Holder /55

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|-------------------------|-----|
| 1) Correct Size | /5 |
| 2) Device Fits | /5 |
| 3) Square/Fit | /5 |
| 4) Buffed Edges | /10 |
| 5) Fastening | /5 |
| 6) Matches Drawing | /10 |
| 7) Degree of Difficulty | /10 |
| 8) Independent Work | /5 |

Report Evaluation /35

- 1) Acad drawing of Device Holder#

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