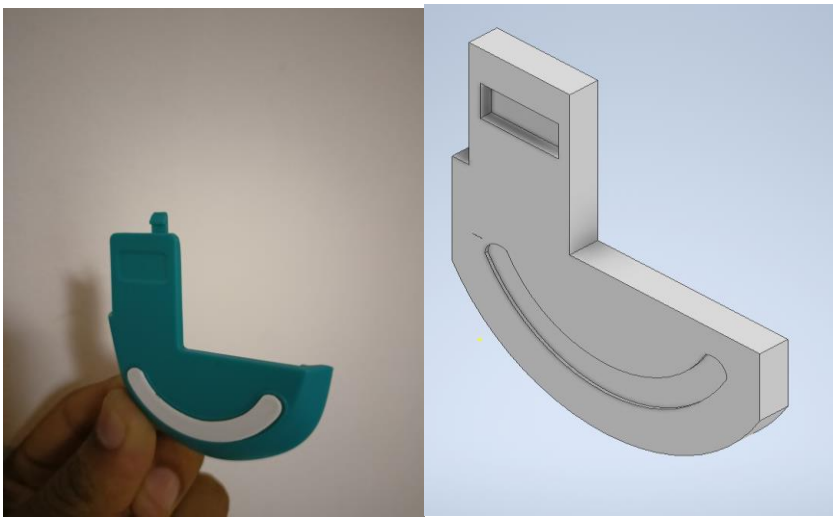
Manufacturing Technology

Micro Project 1

(By Harshit Verma)

Aim: Prepare a simple design of a part optimized for the injection molding process.

Report : Object chosen, Wireless Mouse back cover



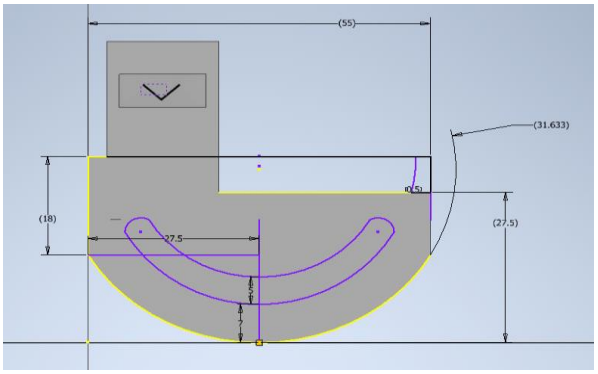
Left hand Image Shows the original object, Right hand image shows the object simulated in Autodesk Inventor 2023.

The Part is a back cover of a Wireless mouse. It covers the Battery Cell as well as the usb drive that you connect to your computer. It slides down when pushed. It also has a platform for surface contact part that is attached in the front of it.

The square shaped hole helps push it down and out the mouse while the curved extrusion keeps a soft plastic material to have a smooth surface contact.

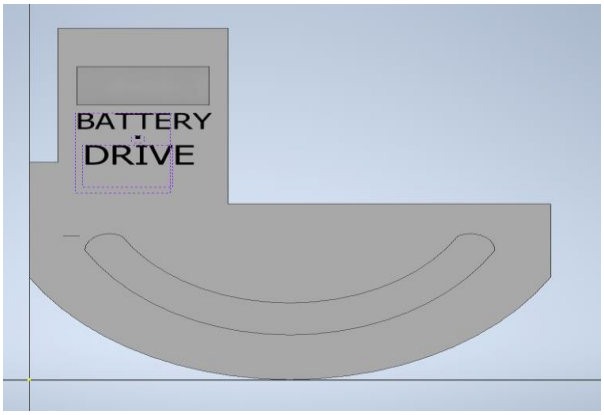
Material Used: Commodity Resins; Polyethylene

Dimensions:

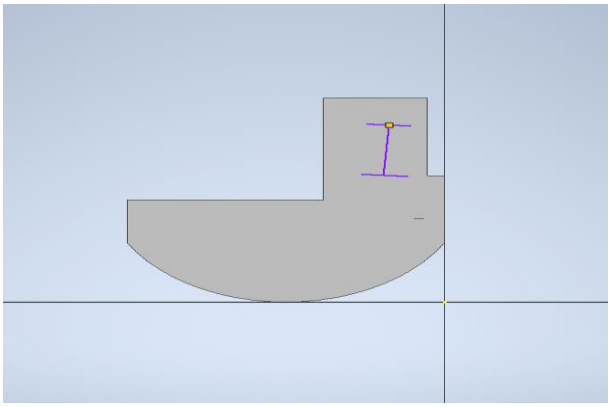


Tips from the guide:

Logos and Text: I have added Logos and Text to the dedicated area. I was not able to find the exact logo and text, so I wrote the initials of symbols used instead.



Ribs: Ribs are added for support as the part is elongated and needs more support as well as this rib holds the cell inside the mouse at place



Wall Thickness: Wall thickness is chosen 5 mm in the image for better visuals of details, but in real scenarios the thickness should be 0,5 mm, which is enough thick for a material like PE.