

Computer Aided Design – Module 2

Lesson 2 – Sellotape Holder



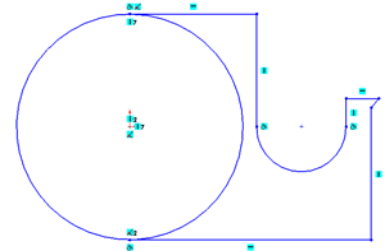
Lesson 2 – Sellotape Holder

New Commands used: Circle, Tangent Arc, Trim Entities, Extrude Boss/Base (Up to Surface), Shell & Edit Color.

Approach:

Create Sketch

Create the sketch shown on the front plane
All relations are **Automatic Relations**
(Note the **Origin** position)



Add Relation

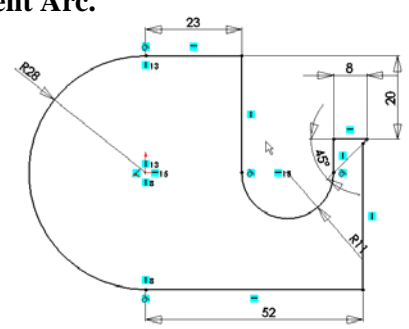
Add a **Horizontal Relation** between the centre of the **Circle** and the centre of the **Tangent Arc**.

Trim Entities

Remove the unwanted portion of the circle using **Trim Entities**.

Smart Dimension

Fully Define the sketch using only the dimensions displayed.



Extruded Boss/Base

Extrude the sketch using a **Blind End Condition** and a **depth** of 23mm

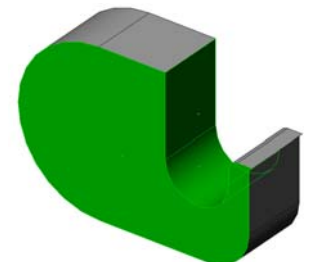


Fillet

Apply a **Fillet** to the corners shown.

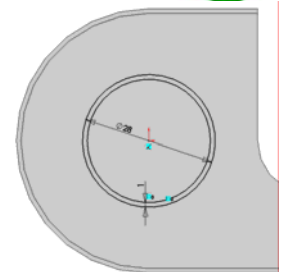
Shell

Shell the part to a 1mm **wall thickness**.
Remove the **selected faces** shown opposite



Sketch on a face

Create the sketch shown on the new face of the shelled part. Ensure that the centre of the circle is **coincident** with the origin.
Use **Offset** to generate the inner circle.

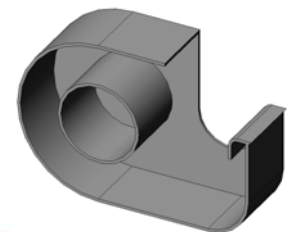


Extruded Boss/Base

Extrude the sketch using an **Up To Surface End Condition**. (Use the 1mm front face as surface)

Edit Material

Apply a **Perspex Acrylic Sheet** finish using **Edit Material**.

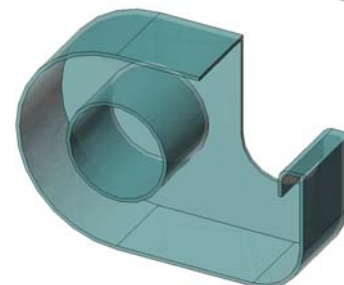


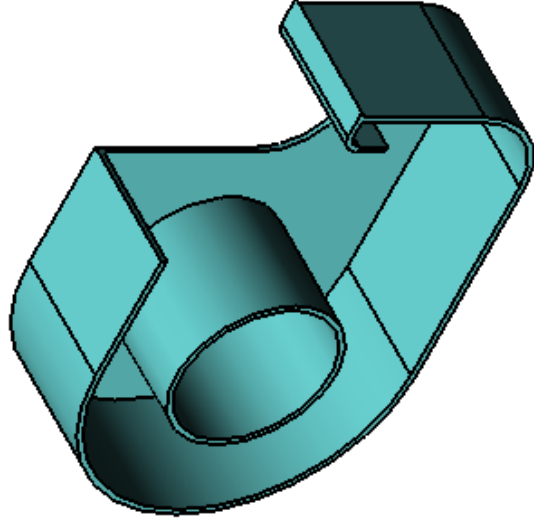
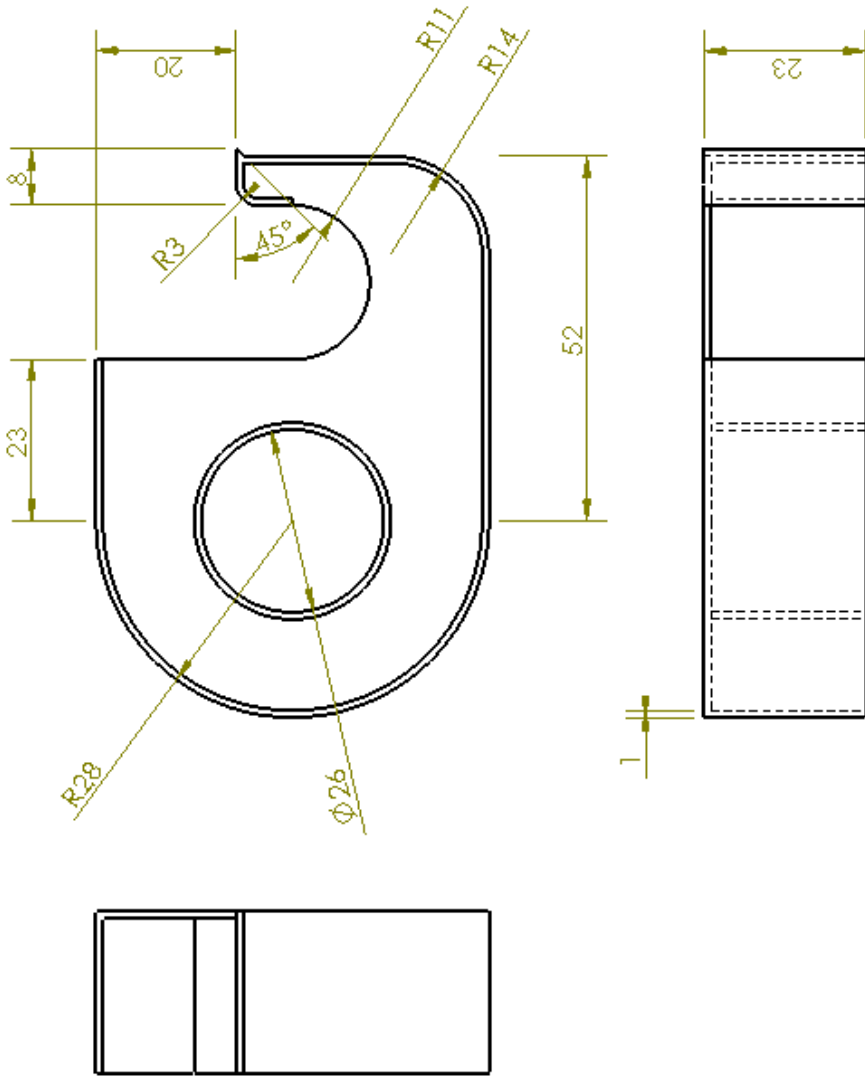
Edit Colour

Choose a suitable colour from the **Edit Color** palette

Discussion Points

Positioning of the **Origin**
Inclusion of **Automatic Relations**.
Sketching on a **Face**
Why **Up To Surface** End Condition?
Explain the emboldened terms





DESIGN & COMMUNICATION GRAPHICS

TITLE:

Sellotape Holder

DRAWN BY: T4

307

A4

UNLESS OTHERWISE SPECIFIED ALL DIMENSIONS ARE IN mm

SCALE: 1:1

Date: 11/10/2007

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