SOLID EDGE
VELOCITY SERIES

Tutorial: ***Upper plate 1***

Project: ***Bird Feeder (Synchronous)***

cad / cam / pdm / cae | CAAP®

Solution Partner PLM | SIEMENS

DETAIL A
1:2

A

AMERICAN PROJECTION	SCALE : 1:5	AUTHOR : Ruben	CAAP Hamersveldseweg 65 3833 GL Leusden +31(0)33-4573322 www.caap.nl
	DIMENSION UNITS : MM	CLASS (DEPARTMENT) : -	
	DATE : 12-11-2011	CHECKED BY : -	

MATERIAL : Wood, Oak	TITEL :	NUMBER :	REV:	SIZE:
PROJECT: Bird Feeder	Upper Plate 1	1006	A	A4

1	1. Start **Solid Edge.** 2. Click on **ISO Part.** 	
2	1. Click the **Polygon by Center** button. 2. Point at the **Origin** and wait until the icon appears before clicking.	
3	3. Point at the X-axis, as shown and wait until the dotted line and icon appears before clicking.	

4	1. Click the **Horizontal/Vertical** button. 2. Click on the line, as shown.	
5	1. Click the **Select** button. 2. When you hover over the Region, it will turn red. Click on the Region, as shown.	
6	3. When you hover over the arrow, it will turn red. Click on the arrow, as shown. 4. Click the **Extrude – Symmetric** button.	

7	5. Type **20** and confirm with **Enter**.	
8	1. Click the **Smart Dimension** button. 2. Click on the horizontal line. 3. Click on the other line, as shown. 4. Click to place the dimension. 5. Key in the value **400** and confirm with **Enter**. 6. Click on the right green arrow. 7. Click on the lock icon.	
9 +	1. Click the **Hole** button. 2. Click on the **Hole Options**.	

10	Fill in the Hole Options, as shown. 3. Type: **Simple**; 4. Diameter: **30**; 5. Extents: **Finite**; 6. Hole Depth: **10**; 7. Click the **OK** button.	
11	1. Make sure the KeyPoint option **Endpoint** is selected. 2. Point the cursor at the Origin and wait until the icon appears.	
12 +	1. Click the **Hole** button. 2. Click on the **Hole Options**.	

13	Fill in the Hole Options, as shown. 3. Type: **Simple**; 4. Diameter: **10**; 5. Extents: **Finite**; 6. Hole Depth: **10**; 7. Click the **OK** button.	
14	1. Click on the plane to place the Hole, as shown.	
15	2. Click the **Select** button. 3. When you hover over the arrow, it will turn red. Click on the arrow, as shown.	

16	4. Select the KeyPoint option: **MidPoint**. 5. Point at the **Origin** and wait until the icon appears before clicking.	
17	1. Click the **Smart Dimension** button. 2. Click on the Hole. 3. Click on the **Origin**. 4. Click to place the dimension. 5. Key in the value **100** and confirm with **Enter**.	
18 +	1. Click the **Select** button. 2. Click on the Hole. 3. Click the **Circulair Pattern** button.	

19	4. Make sure the Keypoint option is **End Point**. 5. Point the cursor at the edge of the centre Hole and wait until the icon appears before clicking.	
20	6. Key in the value **4** at Count. 7. Click the icon.	
21	1. Click the **Chamfer Equal Setbacks** button. 2. Click on the edges, as shown. 3. Key in a value for the chamfer (in this case **1**) and confirm with **Enter**.	

22 +	1. Turn the view. 2. Click the **Hole** button. 3. Click on the **Hole Options**.	
23	Fill in the Hole Options, as shown. 1. Type: **Simple**; 2. Diameter: **10**; 3. Extents: **Finite**; 4. Hole Depth: **10**; 5. Click the **OK** button.	
24	1. Click on the plane to place the Hole, as shown. 2. Click and place two other Holes.	

25	1. Click the **Smart Dimension** button. 2. Click on the edge of the Hole. 3. Click on the horizontal line. 4. Click to place the dimension. 5. Click on the left green arrow. 6. Click on the lock icon. 7. Key in the value **12** and confirm with **Enter**.	
26	If the **Smart Dimension** is still active. 1. Click on the edge of the Hole, as shown. 2. Click on the Y-axis arrow. 3. Click to place the dimension. 4. Click on the lock icon. 5. Key in the value **90** and confirm with **Enter**.	
27	1. Click the **Select** button. 2. Click on the blue area of the Steering Wheel.	

28	3. Select the KeyPoint option: **MidPoint**. 4. Point at the middle point of the horizontal line and wait until the icon appears before clicking.	
29	5. Click on the dot in the centre of the Steering Wheel, as shown.	
30	6. Click on the slanted line to place the Steering Wheel.	

31	7. When you hover over the arrow, it will turn red. Click on the arrow, as shown.	
32	8. Key in the value **90** and confirm with **Enter**.	
33	1. When you hover over the arrow, it will turn red. Click on the arrow, as shown.	

34	2. Key in the value **12** and confirm with **Enter**. 3. Click on esc to deselect the Hole.	
35	1. Repeat the steps 27 till 35 to move the other Hole, as shown.	
36 +	1. Click the **Select** button. 2. Click on the Hole in de PathFinder, as shown. 3. Click on the **Mirror** button. 4. Click on the Front (xz) plane in the PathFinder to mirror the features.	

37	1. Click the **Chamfer Equal Setbacks** button. 2. Click on the edge of the Hole, as shown. 3. Key in a value for the chamfer (in this case **1**) and confirm with **Enter**.	
38 +	1. Click the **Select** button. 2. Click on the Hole and Chamfer in de PathFinder, as shown. 3. Click on the **Mirror** button. 4. Click on the Right (yz) plane in the PathFinder to mirror the features.	
39	Now we set the material property. 1. Click the **Application Button**. 2. Click on **Properties**. 3. Click the **Material Table** button.	

40	1. Choose the material **Wood, Oak**. 2. Click **Apply to Model** to set the material to the part. ***Hint:*** *There are several properties which are connected to a material, like color and density. The density is necessary to determine the weight.*	
41	The part is ready. Now it must be saved. 1. First press **Ctrl + i** to turn the image to isometric view. 2. Click on the floppy icon. 3. Go to the **Summary** tab**.** 4. Fill in *Upper Plate 1* at Title. 5. Go to the **Project** tab and fill in the following properties: Document Number*: 1006*. Revision Number*: A*. Project Name: *Bird Feeder*. 6. Click **OK** to close the screen. ***Hint:*** *All properties of the part are saved at the **File Properties**. These properties will used to fill in a part list.*	

42	1. Browse to the folder named *Bird Feeder*. 2. Save the document by name *Bird Feeder-1006-Upper Plate 1-A.par*. 3. Click the **Save** button. 4. Close the file. ***Hint:*** *Save all files of one project in the same folder.*	