## <u>Inventor</u>

## Single Lego Brick

- 1. Click "New"
- 2. Select "Metric", "Standard (mm).ipt", "Create"
- 3. Select "Start 2D sketch"
- 4. Click on the "XY Plane"
- 5. Select "rectangle" tool
- 6. Hover over the centre of the screen (middle of the cross), click once, move your mouse, click again. You will have drawn a rectangle.
- 7. Select "Dimension" and make the rectangle into an 8 x 8 square, by selecting the side once, moving the mouse and clicking a final time to place the dimension.
- 8. Select "Finish sketch"
- 9. Select "Extrude", select the square and make the distance 10mm
- 10. Click on the "home" button
- 11. Select the top face of the block, right click and select "new sketch"
- 12. Select "circle" tool, draw a circle on the face.
- 13. Select "Dimension", make the circle a diameter of 4mm, and position the circle in the centre of the face (4mm in from the edges)
- 14. Select "Finish sketch"
- 15. "Extrude" the circle to 2mm
- 16. Select the top face of the circle, right click and select "New sketch"
- 17. Select "View" in the top ribbon, "Visual style" and select "Wire frame". This now shows the outlines of the shape only.
- 18. Select "Text", type "LEGO", change the size to 1mm. Push the "Esc" button on the keyboard. Click on the word LEGO and move it to the centre of the circle. Select "Finish sketch" and "Extrude" the letters 0.1mm.
- 19. Select "View" in the top ribbon, "Visual style" and select "Shaded with edges".
- 20. "Fillet" the edges of the block by 0.2mm
- 21. Select "Shell", Click on the base of the block, make the thickness 1mm.

Once you've made the smallest one the size of the double block is

8 x 16 x 10.



