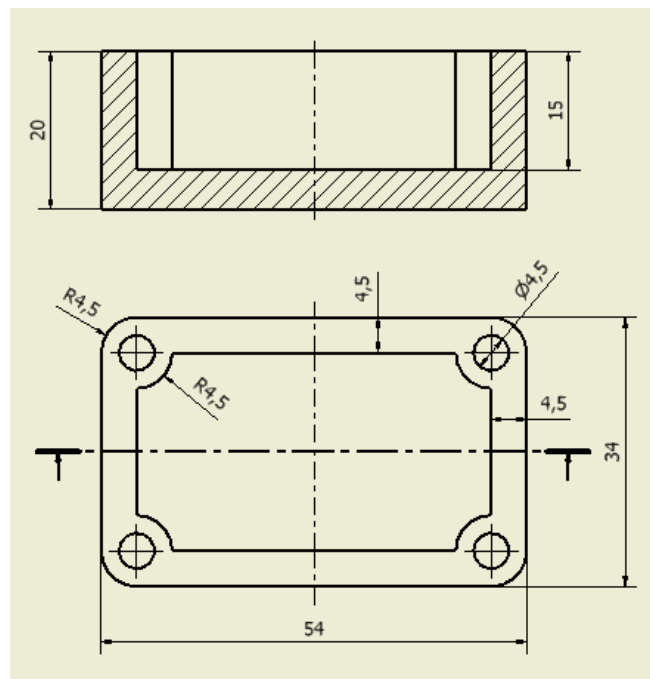
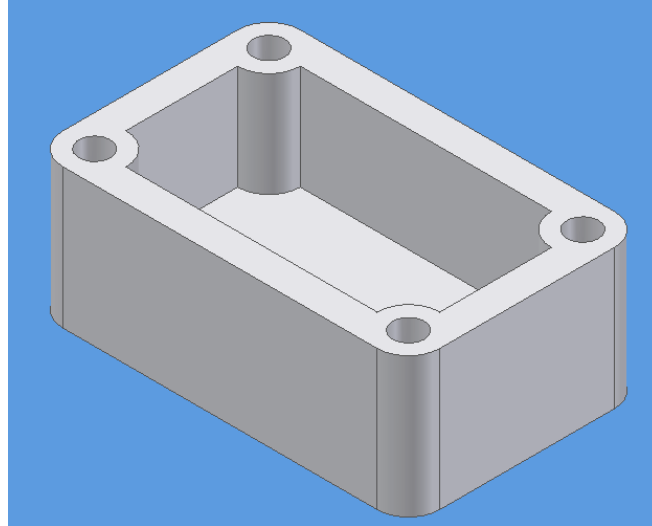


Part 01 - exercise

Applying part modeling

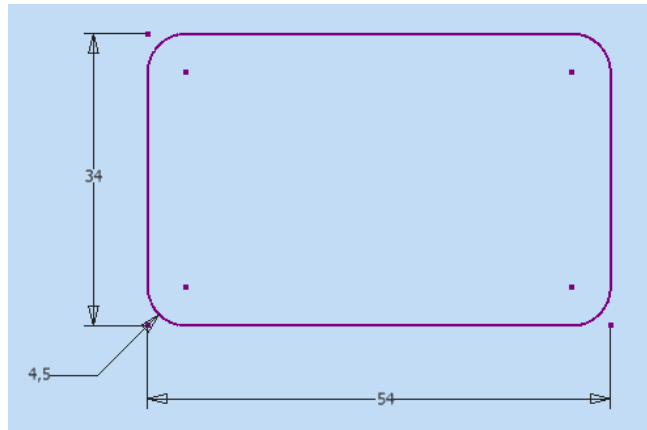
Assignment: Prepare the modeling of the part shown in the figure below!
Preparing the drawing is not included in the assignment!



Assignment aim: To be acquainted with the most significant applications and commands of the program through the modeling of a simple part.

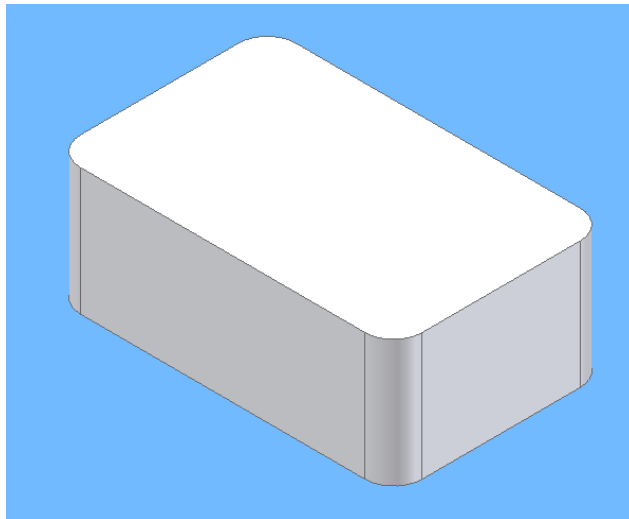
Sketch preparation, geometric and dimension constraints, sketch based form features, set operations, allocation form features, sketch modification, modification of form features.

- 1) Start a new problem, prepare the basic adjustments considering the shape and dimensions of the part to be prepared.
- 2) Prepare the required sketch for formation the form feature by applying the geometric and dimension constraints.

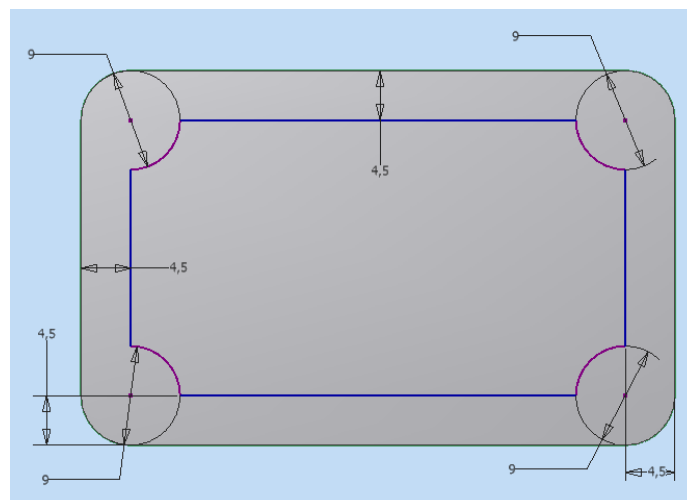


During the sketch preparation use the line and rounding commands. Requirements: present the application of geometric constraints, how can be defined, shown, raise and modifying the geometric constraints.

- 3) Create the basic form features (20mm)!

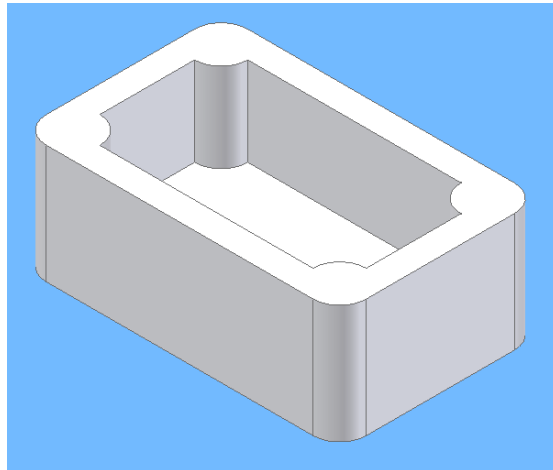


- 4) Take a new sketch plain on the upper plate of the part! Make the following sketch for the preparation of the form features based on the sketch!



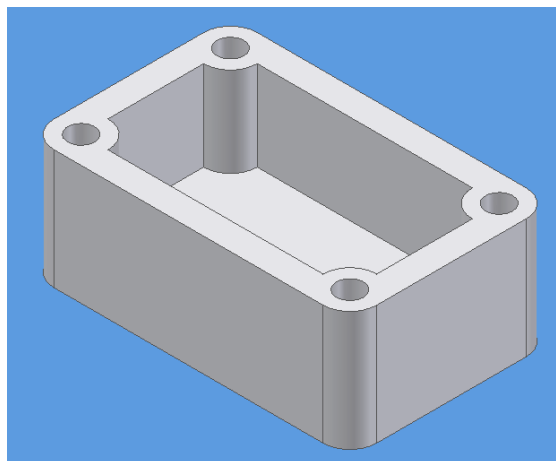
During the sketch preparation apply the offset, the circle and the trim. Here carefulness is required that after sketching the sketch must remain definite.

- 5) Determine the inner part of the box by extruding command (15mm).

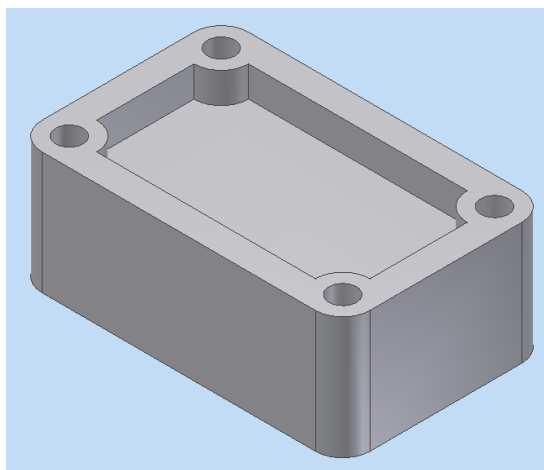


The Bool-operation to be discussed, the applicable operations for extruding, the presentation commands (zoom, pan, rotating, setting special viewpoint), presentation methods (wire frame, hidden edge, shading), orthographic or perspective presentation.

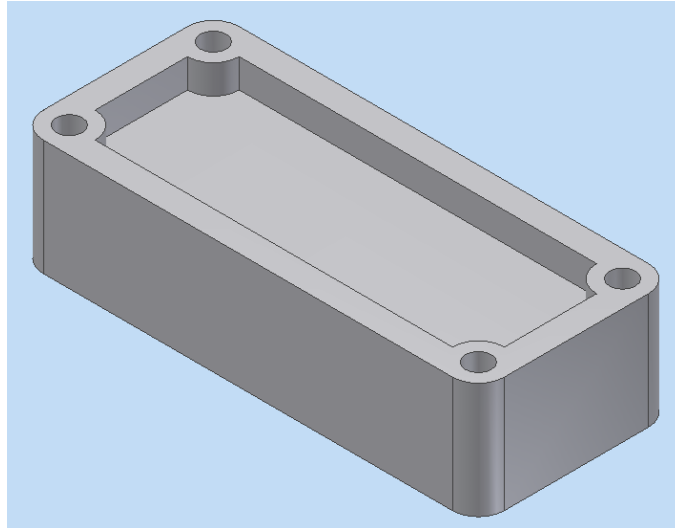
- 6) Prepare 4 pcs through all holes (diameter 4,5 mm) as allocated form features. The center of the holes let be coincide to the rounding centers!



- 7) Modify the depth of the hollow form features from 15 mm to 10 mm. (Modifying form features.)



- 8) Modify the length dimension of the box from 54 mm to 80 mm. (Sketch modifying.)



If the sketch of second form features was not definite (ie. it was not properly constrained together) then the modifying will not be successful. It is a good opportunity to show the students the importance having definite profile.