

Exercise code: DrE-5
Exercise type: Individual - Group
Exercise title: Detailed drawing

Exercise Assignment:

Students work in groups of 5. With other students in the group discuss the functionality of the mechanism you have been given.

- 1) Disassemble the mechanism and measure its main part to as fine details as possible by use of measuring tools provided.
- 2) Make freehand sketch – drawing of the part, which has been assigned to you. That drawing-sketch will serve as the template for further CAD exercise. Therefore it should contain all dimensions, tolerances and surface machining required for the manufacturing of the part. Use as many of A3 papers with standard border and title block as necessary. Use as many orthographic projections and cross sections as necessary to describe part in details. Drawing – sketch must be in scale. **Use 3rd angle projection.**
- 3) Assemble the mechanism after you have finished with measuring.

Exercise tips:

Always read exercise assignment carefully.

When measuring parts do that systematically and handle measuring equipment carefully.

Scales, compass and other drawing tools should be used for this exercise. Arrange drawings neatly and ensure that all letters and lines are made according to BS8888.

Hand in A3 drawing(s) to U/G Mechanical & Aeronautical office, C108, in week 9 (check the deadline on web). Ensure that name, group and other relevant data are filled in the title block.

Note: this drawing will be used for CAD exercise CAD-1c and must be approved before drawn (deadline week 11).