

Topic 2- Digitalisation for Manufacturing: CAD

Session 2 – Part Modelling

Session focus: The Onshape user interface, 2D sketch geometry, and creating a sketch for a part.

Introduction

(5-10 minutes)

Watch video on slide 4 of session presentation.

Sketching allows us to document our ideas and imagination. Models of ideas are important in manufacturing as unlike written and verbal communication, models allow us to sidestep rules such as grammar and help us in clearly communicating our thoughts. This helps us to limit misunderstandings or issues in interpreting our ideas. In addition to facilitating effective communication, sketching and modelling foster iteration and problem-solving in the design process ensuring the development of the most efficient models for manufacture.

What is sketch geometry?

Note your answer for later.

Activity 1- Part Studio Interface and Sketch Geometry

(45 minutes)

Ready to start your Part Modelling journey?

Log-in to your Onshape account [here](#).

Follow the steps in the video on slide 6 of the session presentation.

Activity 2- Level up for your next Certificate! (OPTIONAL)

In this activity you are going to advance your modelling skills to develop 3D models using the Feature Creation element of Onshape. Log-in to your Onshape account and get ready to go!

Follow the steps on slide 7 of the session presentation.

Reflection

(5 minutes)

Questions to consider:

- a. Do you have a better understanding of what sketch geometry is and its importance for Digitalisation for Manufacture? Think back to your response to the question on the bottom of slide 3.
- b. What were the easiest and most difficult elements of Part Modelling?
- c. If you were teaching Part Modelling to someone outside the class what would be the 3-5 most important things for them to know?

Session notes: