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**3D model designing
by manually measured data
Pre-competition task**

3DGBIRE

Pre-competition task

Abstract Additive manufacturing provides organisations with the opportunity to reverse engineer parts that are becoming harder to get hold of due to the disruption in the supply chains that has caused issues such as raising lead times and increasing part cost.

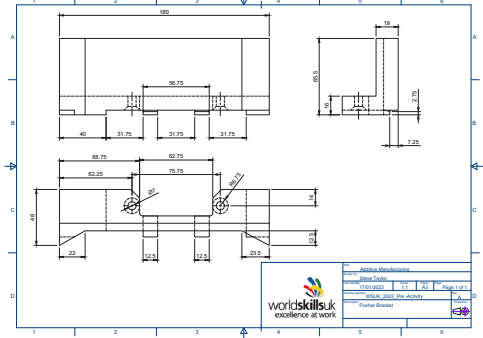
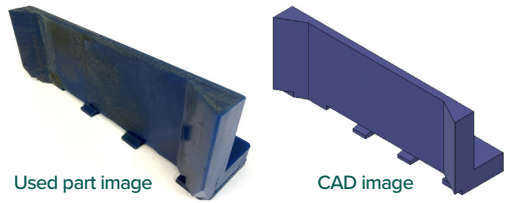
It allows organisations to address these rising concerns and manufacture the components 'in-house' reducing costs and lead times.

Task You have been given a part from a Cereal packing line that the engineering manager has been struggling to get hold of. He has been informed by his purchasing department that they have been provided with a lead time of 8 weeks from order and the cost of the part is £195.00 by their current supplier.

The images opposite shows one of the pusher parts that need to be reverse engineered.

Using the Engineering drawing provided, your task is to reverse engineer the pusher part provided and produce the 3D CAD model – The model has been simplified from that shown in the part image by removing the bottom chamfers on the front edges as seen in the CAD Image.

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- 1) Set up a Fusion360 project
- 2) Create a new design and save it as "Reverse Engineered pusher"
- 3) Using the Engineering drawing provided Reverse Engineer the part provided using parametric modelling.
- 4) Create a simple orthographic drawing in Fusion360 providing all the dimensions as the original Engineering drawing provided.

Reverse engineering of a given part

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