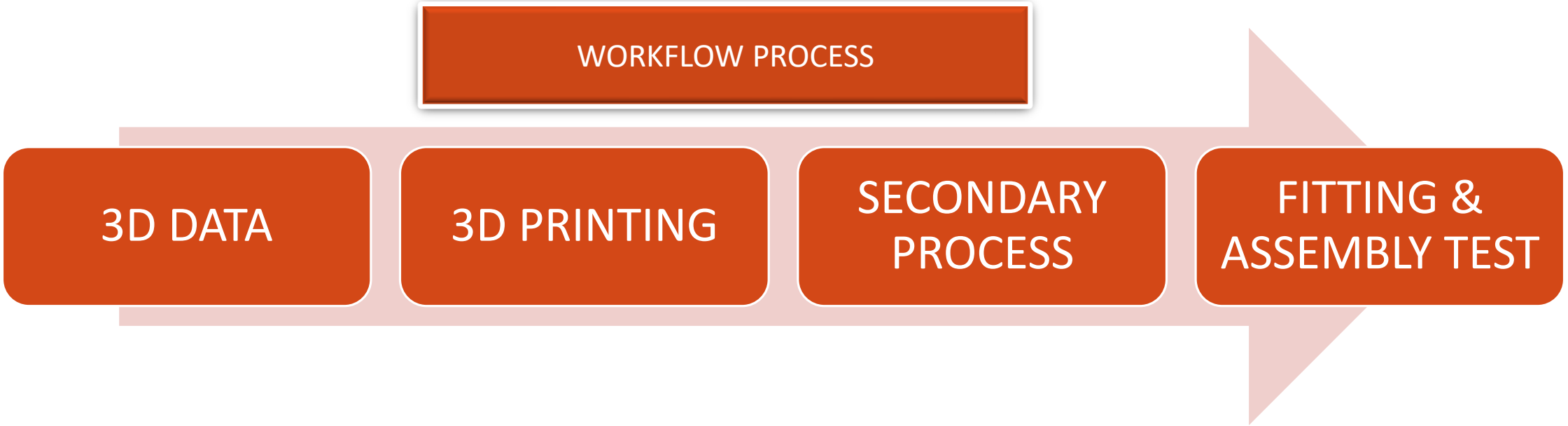
RAPID PROTOTYPING PROCESS

1. TO PROVIDE AUGMENTED SERVICE TO CUSTOMER

2. TO VISUALIZE PRODUCT AND PART WORKABILITY BEFORE PROCEEDING TO TOOLING STAGE

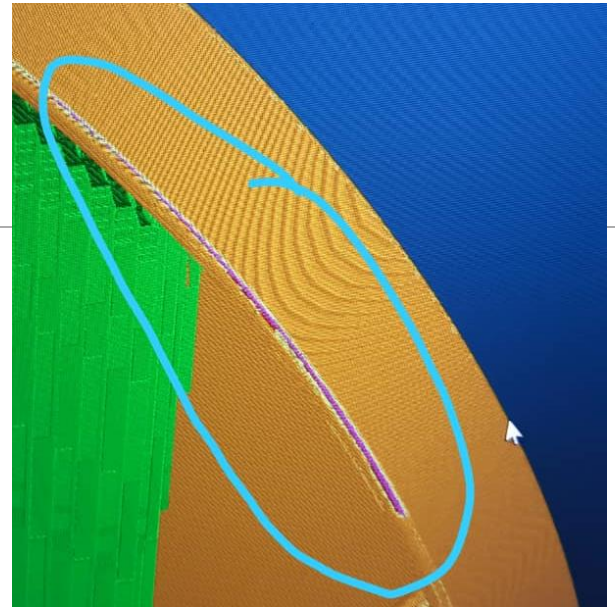
3. TO BE ABLE TO PRODUCE A SAMPLE PROTOTYPE IN THE SHORTEST AMOUNT OF TIME

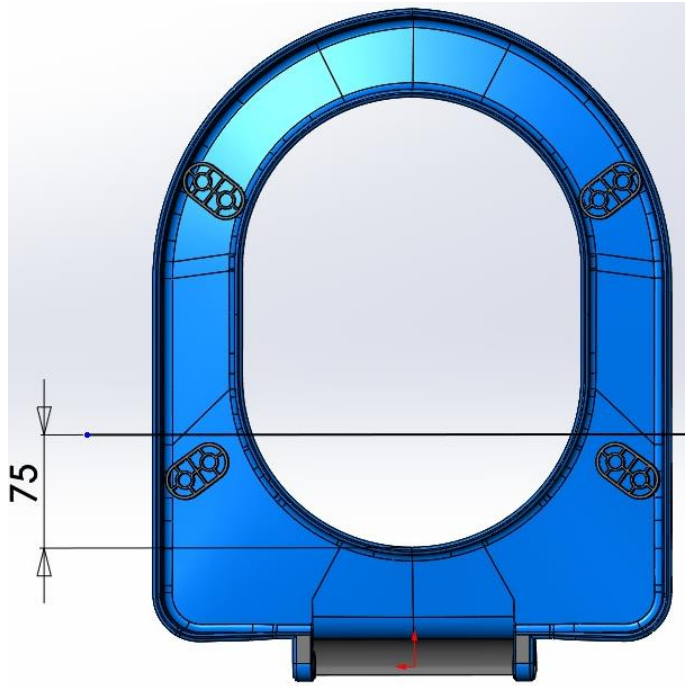


3D DATA

- TO RECEIVE/ CREATE 3D DATA
- TO DISCUSS MATERIAL CHOICE/ IDENTIFY PRINTING RESTRICTIONS WITH CUSTOMER
- TO REPAIR SURFACE/ 3D MESH TO ENHANCE PRINTING QUALITY
- TO PREPARE PRINTING JIG AND NECESSARY PARTS FIXTURE ON PART
- TO PREPARE POST-PROCESSING OF 3D DATA FOR 3D PRINTING STAGE

TO DISCUSS PRINTING LIMITATION DUE TO MAXIMUM TANGENT OF CURVATURE



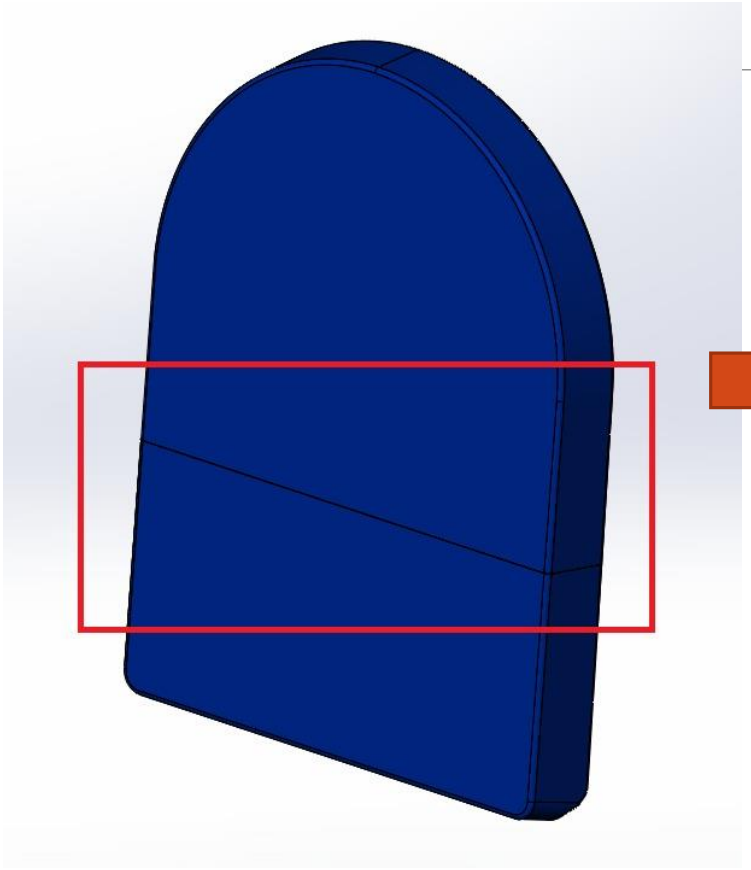


TO DETERMINE PRINTER LIMITATION AND TO SPLIT PRODUCT INTO 2 PIECES

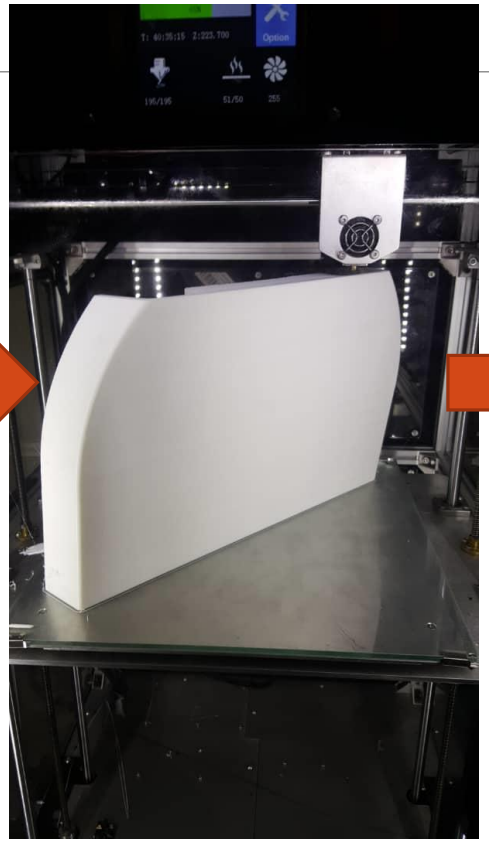
3D PRINTING

- TO PRINT 3D DATA BASED ON DISCUSSION AND WORKABILITY
- -below is example 1

We will provide:
Lead time
Shell wall thickness
Progress report



3D DATA

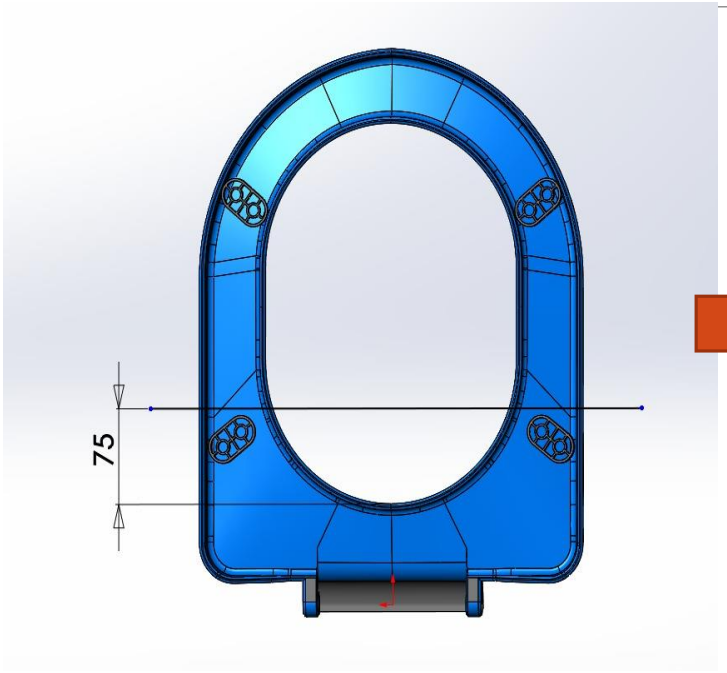


PRINTING STAGE

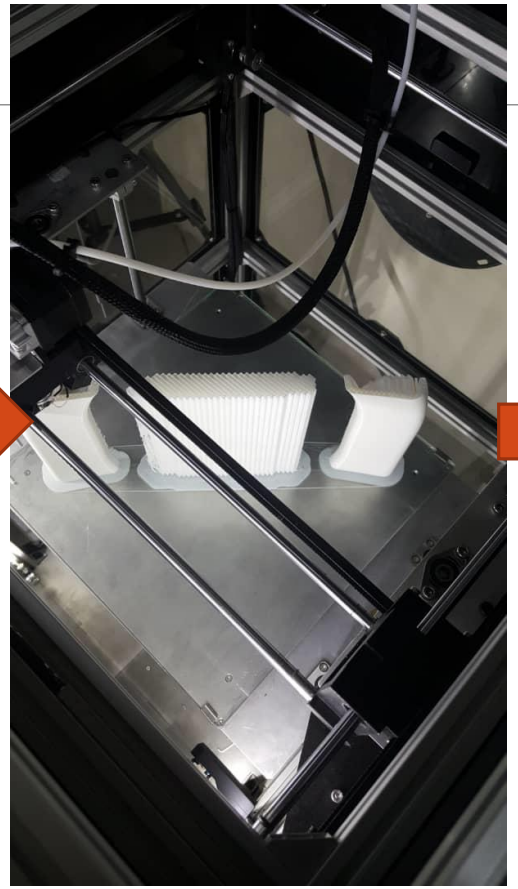
END OF PRINTING

3D PRINTING

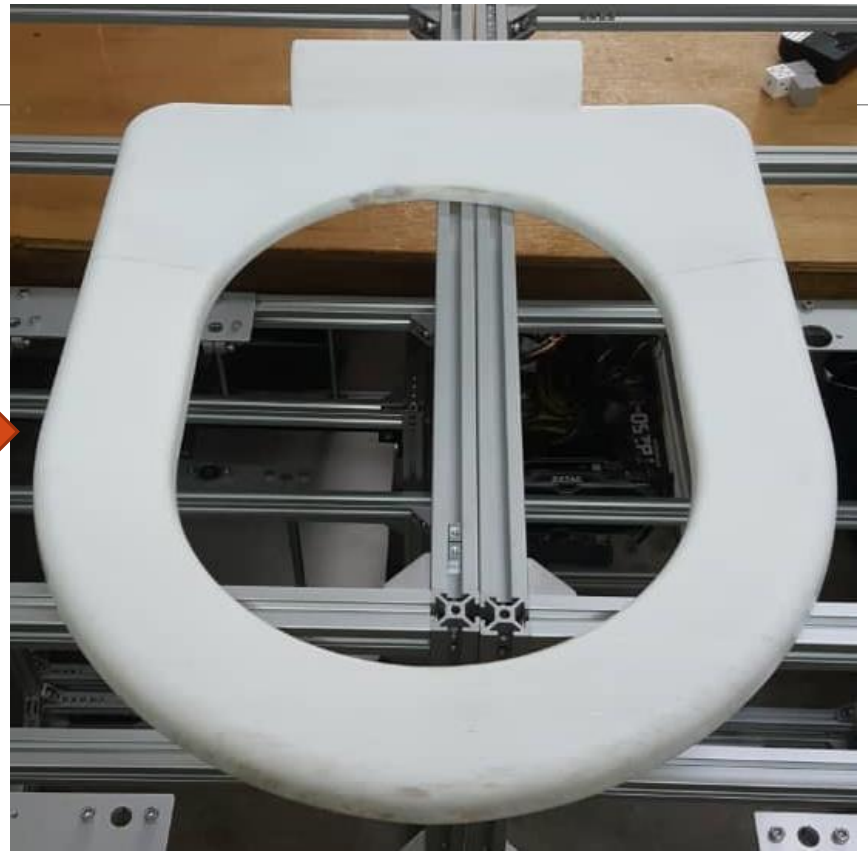
- Example 2



3D DATA



PRINTING STAGE



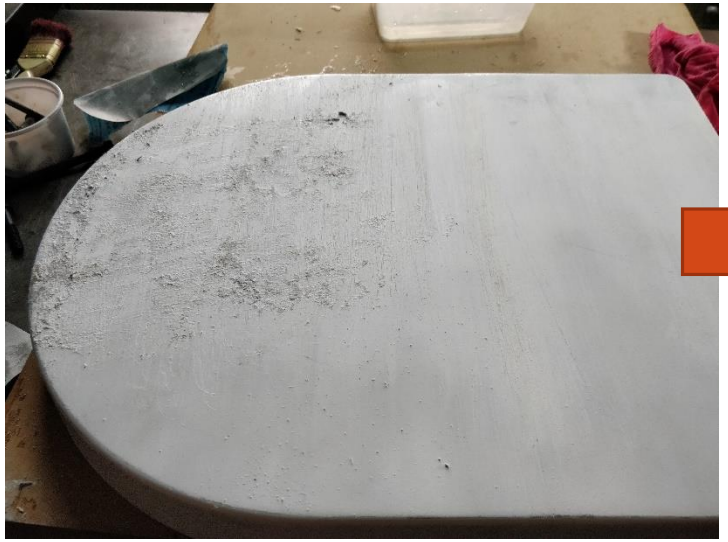
END OF PRINTING

SECONDARY PROCESS

- Usually printed part will have rough surface & minor defects
- These will be eliminated through secondary processes, ie:

- Polishing
- Touch-up
- Adhesives
- Spray painting
- coating

Example1: seat cover

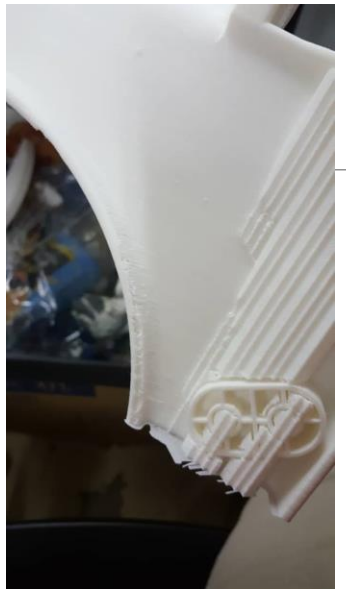


Rough sanding process

Fine Sanding process

Spray painted and clear coat

SECONDARY PROCESS



Excess printing jig
needs to be removed

Rough sanding process

Example2: WC seat

Fine Sanding process

Spray painted and clear coat

FITTING & ASSEMBLY TEST

- PARTS WILL BE FITTED AND ASSEMBLY WITH CHILD COMPONENTS
- TOLERANCE USUALLY WILL BE WITHIN 0.1-0.3MM

CHILD PARTS ASSEMBLY