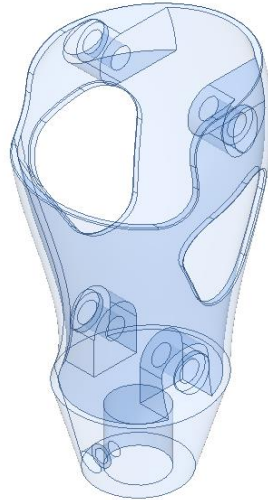


## Year 3: Engineering: ASSIGNMENT 1



### Instructions:

- Having created the Prosthetic leg calf based on the details given in tutorial 2 you are required to create the **THREE** following drawings using the template you created in year 2.

Assignment 1A.

Assignment 1B.

Assignment 1C.

Create as A3 Drawings at an appropriate scale and to ISO standards.

Include Geometric tolerances, limits and fits where appropriate.

Save each as a dwfx file for handing in.

# Assignment 1A: Complex Loft Details

| Top Spline |       |     |
|------------|-------|-----|
| X          | Y     | Z   |
| 0          | 55    | 150 |
| 38.971     | -22.5 | 150 |
| -38.971    | -22.5 | 150 |
| 0          | 55    | 150 |

| Bottom Spline |       |   |
|---------------|-------|---|
| X             | Y     | Z |
| 0             | 40    | 0 |
| 30.311        | -17.5 | 0 |
| -30.311       | -17.5 | 0 |
| 0             | 40    | 0 |

| Spline A |    |     |
|----------|----|-----|
| X        | Y  | Z   |
| 0        | 40 | 0   |
| 0        | 50 | 50  |
| 0        | 60 | 100 |
| 0        | 55 | 150 |

| Spline B |       |     |
|----------|-------|-----|
| X        | Y     | Z   |
| 30.311   | -17.5 | 0   |
| 30.311   | -17.5 | 50  |
| 43.301   | -25   | 100 |
| 38.971   | -22.5 | 150 |

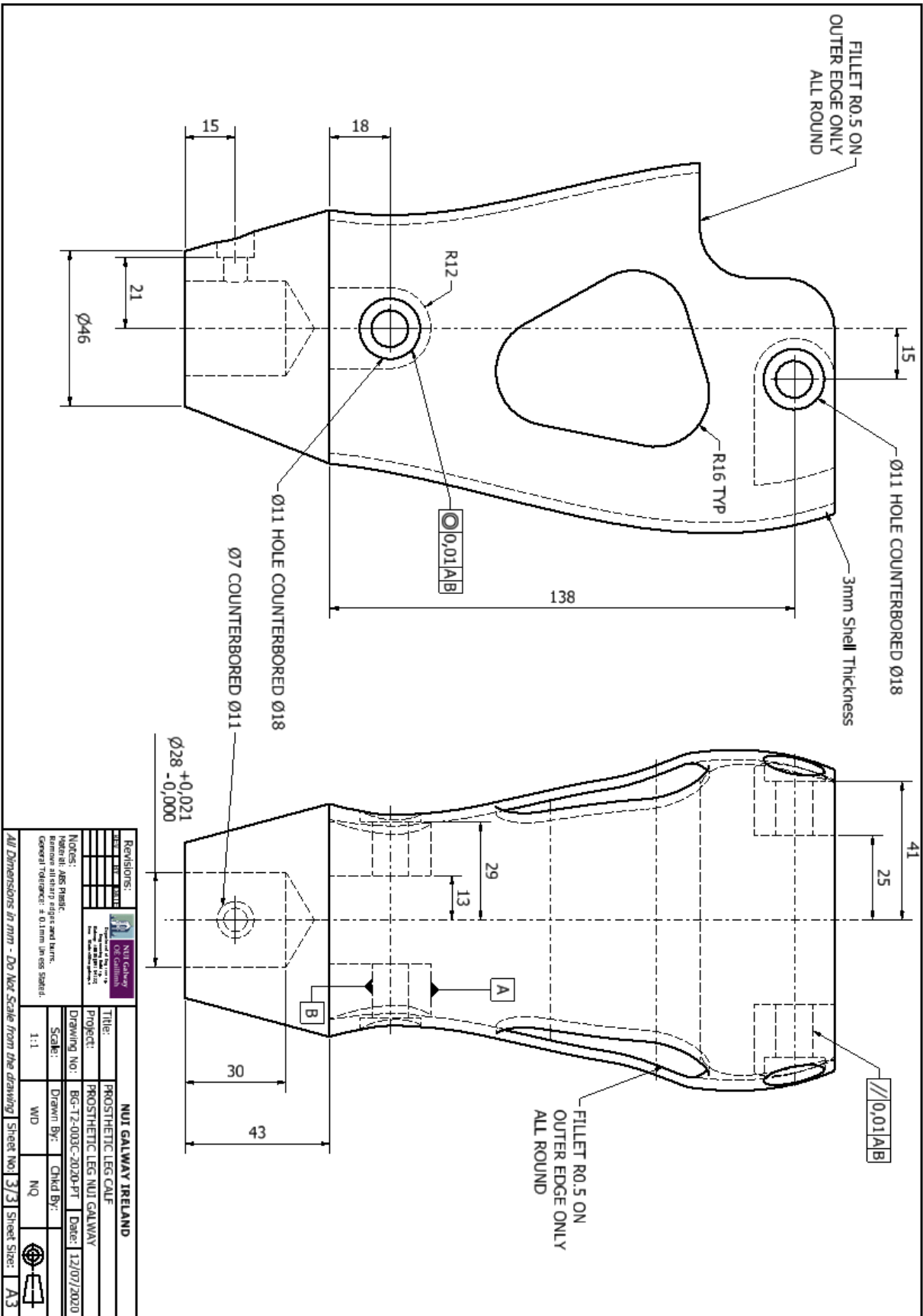
| Spline C |       |     |
|----------|-------|-----|
| X        | Y     | Z   |
| -30.311  | -17.5 | 0   |
| -30.311  | -17.5 | 50  |
| -43.301  | -25   | 100 |
| -38.971  | -22.5 | 150 |

| Revisions:   |      | <b>NUI GALWAY IRELAND</b>             |      |             |  |  |  |   |  |
|--|------|---------------------------------------|------|-------------|--|--|--|---|--|
| <table border="1"> <tr> <th>NO.</th> <th>DATE</th> <th>DESCRIPTION</th> </tr> <tr> <td> </td> <td> </td> <td> </td> </tr> </table> |      | NO.                                   | DATE | DESCRIPTION |  |  |  | Title: PROSTHETIC LEG CALF<br>Project: PROSTHETIC LEG NUI GALWAY<br>Drawing No: BG-T2-003A-2020-PT   Date: 12/07/2020 |  |
| NO.  | DATE | DESCRIPTION                           |      |             |  |  |  |   |  |
|  |      |                                       |      |             |  |  |  |   |  |
| Notes:<br>Values given in this table are Absolute Cartesian Coordinates based on the standard Isometric non-decisor system         |      | Scale: NTS   Drawn By: CHJ   Chkd By: |      |             |  |  |  |   |  |
| All Dimensions in mm - Do Not Scale from the drawing   |      | Sheet No: 1/3   Sheet Size: A3        |      |             |  |  |  |   |  |

# Assignment 1B: Cut Out Details

| Revisions:   |      | <b>NUI GALWAY IRELAND</b>               |      |             |  |  |  |   |  |
|--|------|---|------|-------------|--|--|--|---|--|
| <table border="1"> <tr> <th>NO.</th> <th>DATE</th> <th>DESCRIPTION</th> </tr> <tr> <td> </td> <td> </td> <td> </td> </tr> </table> |      | NO.                                     | DATE | DESCRIPTION |  |  |  | Title: PROSTHETIC LEG CALF (CUT OUT DETAILS)<br>Project: PROSTHETIC LEG NUI GALWAY<br>Drawing No: BG-T2-003B-2020-PT   Date: 12/07/2020 |  |
| NO.  | DATE | DESCRIPTION                             |      |             |  |  |  |   |  |
|  |      |   |      |             |  |  |  |   |  |
| Notes:<br>General Tolerance: ± 0.35mm Unless Stated  |      | Scale: 1:1   Drawn By: WD   Chkd By: NQ |      |             |  |  |  |   |  |
| All Dimensions in mm - Do Not Scale from the drawing   |      | Sheet No: 2/3   Sheet Size: A3          |      |             |  |  |  |   |  |

# Assignment 1C: Calf Details



|  |     |   |                           |
|--|-----|---|---------------------------|
| Revisions:   |     | <br>National University of Ireland Galway |                           |
| Rev:   | By: | Title:                                    | PROSTHETIC LEG CALF       |
| Rev:   | By: | Project:                                  | PROSTHETIC LEG NUI GALWAY |
| Rev:   | By: | Drawing No.:                              | RG-T2-003C-2020-PT        |
| Rev:   | By: | Scale:                                    | 1:1                       |
| Rev:   | By: | Drawn By:                                 | WD                        |
| Rev:   | By: | Checked By:                               | NQ                        |
| All Dimensions in mm - Do Not Scale from the drawing |     | Sheet No.:                                | 3/3                       |
|  |     | Sheet Size:                               | A3                        |