Mechanical Fabrication

WSC2013\_TP05\_M2\_EN

Submitted by: Autodesk® Inc.

# Contents

This Test Project proposal consists of the following documentation/files:

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| 1. WSC2013\_TP05\_M2\_EN.pdf (printed) | 1. Prints of all parts to be modeled |
| 1. All required assemblies and parts |  |

# Introduction

A manufacturer is designing an assembly line for folding and packing cardboard boxes. You will model components of a subassembly for the assembly line.

# Description of project and tasks

Review the PDF and prints of the assemblies and parts, then model a subassembly. Also, create exploded views, detailed drawings, and animations of the exploded views.

You have **6 hours** to complete the project.

# Instructions to the competitor

## OPEN AND REVIEW SUPPLIED PRINTS AND FILES

1. Prints of the required frame subassemblies and parts.
2. The supplied assemblies and part files are located in the Data Files > Day 2 folder.

***MODEL AND ASSEMBLE THE PARTS***

1. Model the required parts and frames. Refer to the prints for the part names and dimensions of each part.
2. Assemble the modeled parts and standard parts using the prints for reference.

## CREATE DRAWINGS

1. To complete the drawings:
   1. On the first sheet, create an exploded, shaded isometric view of the complete 019310 subassembly.
   2. Add balloons and a parts list. The list should have 3 columns, ITEM, QTY, and PART NUMBER.
   3. On the next sheet, create an exploded, shaded isometric view of the 500106R frame.
   4. Add balloons and a parts list. The list should have 3 columns, ITEM, QTY, and PART NUMBER. The frame member family, size and length must be listed in the PART column.
   5. On the next sheet, create an exploded, shaded isometric view of the 500620R frame.
   6. Add balloons and a parts list. The list should have 3 columns, ITEM, QTY, and PART NUMBER. The frame member family, size and length must be listed in the PART column.
   7. On the next sheet, create an exploded, shaded isometric view of the SUB-199310 subassembly.
   8. Add balloons and a parts list. The list should have 3 columns, ITEM, QTY, and PART NUMBER.
   9. On the next sheet, create flat pattern drawings of parts, 500538L, 500538R, 500446R, and 500504R.
   10. On the same sheet, create a view of 500106-041\_EDGE and add the weld symbol.

## CREATE ANIMATIONS

1. Create an animation of the exploded, shaded isometric of the 019310 subassembly.
   1. Save the file in AVI format using the competition file naming convention.
2. Create an animation of the exploded, shaded isometric of the 500106R frame.
   1. Save the file in AVI format using the competition file naming convention.
3. Create an animation of the completed exploded, shaded isometric 500620R frame.
   1. Save the file in AVI format using the competition file naming convention.
4. Create an animation of the completed exploded, shaded isometric SUB-199310.
   1. Save the file in AVI format using the competition file naming convention.

## REMARKS

1. For missing dimensions, approximate the value or check against matching parts.
2. Standard connections are required on SUB-199310 only.
3. All drawings should be printed on A2 size sheets.
4. All files should be saved in the following folder: Data Drive/Country code/Day 2/File name.

# Marking scheme

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| --- | --- | --- |
| **CRITERION** | **SUBCRITERION** | **MARKS** |
| B1 | Parts and assemblies | 7.5 |
| B2 | Frame parts and assemblies | 7.5 |
| B3 | Fabrication drawing details | 5 |
| B4 | Drawing views and presentation | 5 |
|  | **Total**: | 25 |