Project: Parametric Modelling (Day 2 PM)
Time: 3 Hours
Marks: 25 points

Given:
Secondary and Post-Secondary
- CAD files required to complete the assemblies (#2-Keypad & #6-Screw)
- CAD files in two new sizes that are required to complete the new PMAX6 & PMAX8 assemblies (#4-Gasket & #5-Back Cover)
- CAD File for additional button
- Design Table Drawings (#1-Front Cover & #3-Display Assembly)

1. Task:
Create the following:
Secondary and Post-Secondary
1.1 Use your existing PMAX4 parts (#1-Front Cover & #3-Display Assembly) and the supplied design table drawings to create two additional variants of each part for PMAX6 & PMAX8. Reference the supplied #4-Gasket & #5-Back Cover parts of PMAX6 & PMAX8 for all missing dimensions
1.2 One new constrained assembly model for PMAX6 that includes the new parts (#1-Front Cover & #3-Display Assembly) and all other provided CAD models for PMAX6
1.3 One new constrained assembly model for PMAX8 that includes the new parts (#1-Front Cover & #3-Display Assembly), the additional button, and all other provided CAD models for PMAX8
1.4 Assembly Drawings (3 Sheets)
- Sheet 1 – Labelled Isometric Views of PMAX4, PMAX6, & PMAX8 together as a size comparison (No dimensions required)
- Sheet 2 – Orthographic and isometric views of assembled PMAX6 model with overall dimensions for Width, Height and Depth. Additional dimensions to show the design table changes required
- Sheet 3 – Orthographic and isometric views of assembled PMAX8 model with overall dimensions for Width, Height and Depth. Additional dimensions to show the design table changes required
1.5 Use your Skills Canada B-size template for final layout and detail drawings
1.6 Visually appealing rendered image of all three sizes of fish finder (Together in one frame), exported as .jpg
- Leave the rendering open on the PC for evaluation upon completing the competition

2 Output:

Secondary and Post-Secondary

2.1 Create a single PDF file of your final drawings requested in the tasks specified above

2.2 Name your file: ### Day2PM.pdf (### is your unique contestant number.)

- **Files using wrong names will be penalized 3 points per file**

2.3 Create a visually appealing rendering of all three sizes of fish finder (Together in one frame) and export as a .jpg in 1280 x 720 format

3 General:

3.1 Each task throughout the competition is independent from the others.

3.2 DO NOT include any part of your name, school, province/territory in documents, or when naming files and folders being submitted.

- Any file, identified by any part of a competitors' name, school, province/ territory, will not be judged.

3.3 When you have finished working on a specific day, do not close project files or turn off your computer, Judges will view and mark your work on screen as needed.

3.4 Ask the judges before leaving the competition area as the judges may require your assistance accessing your work.

4 Assessment:

Task 1.1 Parametric Change

- Parts #1-Front Cover & #3-Display Assembly are configured to resize as PMAX4, PMAX6, & PMAX8. Points will be deducted if the parts are split into six part files instead of two parts with three configurations (6 points)

Task 1.2 PMAX6 Assembly

- One fully constrained PMAX6 assembly completed with all newly modelled and provided parts. Fastener count to represent accurate hole pattern (4 points)

Task 1.3 PMAX8 Assembly

- One fully constrained PMAX8 assembly completed with all newly modelled and provided parts. Fastener count to represent accurate hole pattern (4 points)

Task 1.4 Assembly Drawings

- Isometric representation of all three assemblies with accurate overall dimensions (2 points)
- Orthographic and isometric views of assembled PMAX6 with accurate overall dimension (3 points)
- Orthographic and isometric views of assembled PMAX8 with accurate overall dimension (3 points)

Task 1.6 Rendering

- Judged based on visual appeal and conformity to specifications provided (3 points)