

Skills Canada National Competition

SCOPE DOCUMENT

SCOPE DOCUMENT	
Competition Year	2012
Competition location	Edmonton, AB
Trade Number	5
Trade Name	Mechanical CADD
Level	Secondary and Post-Secondary

1. INTRODUCTION

1.1 Purpose of the Challenge.

To evaluate each contestant's preparation for employment in the field of Engineering Design and Drafting using CADD and to recognize outstanding students for excellence & professionalism in their field.

1.2 Duration of contest.

12 hours

1.3 Skills and Knowledge which may be tested.

- Demonstrate knowledge of material designations based on their function within a simple mechanical assembly
- Select fasteners and other assembly components as required (pins, keys, snap rings, etc.).
- Use CADD software to produce drawings that comply with the following standards:
 - CAN3-B78.1-M83(R1990)
 - CAN/CSA-B78.2-M91
 - B97.3-M1982 (R1992)
 - B97.3-1970 (R1992)
 - ISO International if requested
- Use CADD software to produce 3D parametric models.
- Use measuring instruments.
- Dimension and tolerance drawings to industry standard
- Animation

2. CONTEST DESCRIPTION

2.1 List of documents produced and timeline for when competitors have access to the documents.

DOCUMENT	DATE OF DISTRIBUTION VIA WEBSITE
No other competition documents will be released prior to the competition	

2.2 Tasks that may be performed during the contest

- Day 1 Session 1 Sketching and Part Measuring
- Day 1 Session 2 Detail Drawing from Assembly and Blueprint Interpretation.
- Day 2 Session 3 Assembly from Details.
- Day 2 Session 4 Parametric Modeling – Family of parts

3. EQUIPMENT, MATERIAL, CLOTHING

3.1 Equipment and material provided by Skills/Compétences Canada

- IBM-compatible micro-computer, monitor and mouse: All supplied equipment will be identical for each contestant.
- No computer may be brought on site.
- Software:
 - AutoCAD 2011 or 2012
 - Autodesk Inventor Professional 2011 or 2012
 - Solid Works Version 2011 or 2012 Educational or later version
 - Contestants who want to use other software must formally request written approval from the National Technical Committee at least 21 days prior to the competition. Only licensed software will be accepted. Approved software must be supplied to the National Technical Committee 21 days prior to the competition. If the committee is unable to successfully install the software, then the competitor will be required to supply their own computer with legal software licence, which will not be technically supported by the committee.

3.2 Equipment and material provided by the competitor

- Calculator
- Reference materials (no photocopies or hand written notes)
- Pencils, Sketching Paper USB memory stick to be used at the end of the competition only.
- Measuring Instruments - 6" Vernier Caliper, Ruler, Small Radius Curves, Thread Gauges, Angle Plate Protractor – to be in both Imperial and Metric where applicable
- French speaking competitors must provide their own French keyboard

- Competitors can bring their own mouse (or 3D Mouse) but they will be held responsible for the proper functioning and installation prior to the start of the competition
- All other Equipment and material must be approved by the National Technical Committee minimum 21 days before the competition

3.3 Required clothing (provided by the competitor)

N/A.

4. SAFETY REQUIREMENTS

4.1 List of required personal protective equipment (PPE) provided by competitors

No PPE required

4.2 List of required personal protective equipment (PPE) provided by Skills/Compétences Canada (S/CC)

No PPE required

No additional PPE supplied by SCC

5. ASSESSMENT

5.1 Point breakdown

EVALUATION SECTIONS
Presentation
Sketches
Dimensioning tolerancing, geometric tolerancing
Drawing Standards application

6. ADDITIONAL INFORMATION

6.1 Software requirements

If French software is required the Skills/Compétences Canada Provincial/Territorial offices must advise Skills/Compétences Canada National Secretariat a minimum of 1 month prior to the competition or this software might not be guaranteed.

6.2 Computer keyboard requirements

English Keyboards will be provided, if a French keyboard is required the Skills/Compétences Canada Provincial/Territorial offices must advise Skills/Compétences Canada National Secretariat a minimum of 1 month prior to the competition or this keyboard might not be guaranteed.

6.3 Tie (No ties are allowed)

In case of a tie, the winner will be determined by rank order of the highest score of Day 1 AM sketch of the physical part. Sketch will carry no mark unless there is a tie.

6.4 Competition rules

Please refer to the competition rules for all general SCNC information.

7. NATIONAL TECHNICAL COMMITTEE MEMBERS

Region	Name	Email address
Western Region	Wayne Grywacheski	w.g@sasktel.net
Ontario	Fred Fulkerson	ffulkerson@conestogac.on.ca
Québec	Robert Viau	Robert.viau@csmb.qc.ca;Sesostris1948@hotmail.com
Atlantic Region	Terry Lucas	tlucas@nl.rogers.com
Pacific	Matthew Kennedy	Matthew.kennedy@shaw.ca