

## Course Details:

**Duration:** 3 days

**Prerequisite:** Inventor Introduction or equivalent experience; CNC machining experience

**Courseware:** n/a

**Achievement:** Certificate

**Time:** 9:00am - 5:00pm

## General Information:

**Locations:** Courses are hosted at training facilities across Canada, including:

Burnaby, BC  
Calgary, AB  
Edmonton, AB  
Regina, SK  
Winnipeg, MB  
Vaughan, ON  
Etobicoke, ON  
Toronto, ON  
Quebec City, QC  
Montreal, QC  
Hanwell, NB

Alternatively, training can be conducted on-site for a specific client or at a 3rd party facility in any city or province

## Pricing, Registration &

**Scheduling:** Please contact our training coordinator at 1-877-438-2231 x227 or via email at [training@solidcad.ca](mailto:training@solidcad.ca)

**Complete course listing:**

[www.solidcad.ca/training](http://www.solidcad.ca/training)

## Course Description:

The Inventor HSM CAM training course teaches CNC machine-tool (*i.e.*, mill, lathe, mill-turn, sheet-material cutter) programming through the HSM CAM add-in module for the Inventor 3D parametric CAD environment.

It is expected that enrolees have experience in basic functions of Inventor (creation of simple parts, creation of simple assemblies with constraints, creation of reference geometry). While enrollees with little or no CAM experience are welcome, it is expected that they have experience or good understanding of principles of machining (cutting tool geometry, cutting speed, feed, width of cut, depth of cut, roughing vs finishing).

Note that HSM is available for Inventor, SolidWorks, and Fusion 360. Because its implementation is nearly identical across all platforms, this training course will be appropriate for users of SolidWorks or Fusion 360 as well as users of Inventor.

Upon completion of this course, users will have the ability to skillfully create efficient machine tool paths and corresponding G-code instruction sets.

## Learning Objectives:

- Overview of the HSM workflow and interface
- 3-axis milling:
  - setup;
  - 2.5D milling operations;
  - drilling operations;
  - 3D milling operations;
  - intelligent roughing.
- 4-and 5-axis milling:
  - 3+1/3+2 pre-positioning for 2.5D and 3D operations;
  - simultaneous 5-axis operations.
- 2-axis turning:
  - setup;
  - standard turning operations
- Combining turning and milling operations for mill-turns
- Sheet-material cutter operations and intro to "Nesting Utility"
- Program clean-up
- Stock-removal simulation
- Insertion of "Manual NC" operations
- Posting and G-code editing
- Productivity topics