

Skills USA CNC Machining & Technician Competitions
Turning & Milling
Topics for Student Preparedness for the 2017 **Connecticut**

CNC programming for Milling Specific Content

- ***PLEASE NOTE: Use of Master Cam or Haas Intuitive Programming tools is prohibited***
- 2.5 Axis milling
- Slots
- Pockets
- Chamfers & Angles
- Radii
- Drilling
- Reaming
- Tapping

CNC programming for Turning Specific Content

- ***PLEASE NOTE: Use of Master Cam or Haas Intuitive Programming tools is prohibited***
- 2 axis turning
- Drilling
- Chamfers
- Radii
- Boring
- Threading O.D.
- Grooving

Knowledge of the Haas Simulator and its operations

Knowledge to set up a Haas **milling or turning** center

- Establishing work & tool offsets
- Loading the program and checking the tool path
- Executing the program at safe feeds and speeds
- Inspection of work in the machine

CNC Technology Applications

- Work holding devices
- Feed & Speed calculations
- Trigonometry calculations
- G & M Code definitions
- Machine configurations
- Machine motion
- Cutter Compensation
- Work Offsets
- Tool Offsets
- Canned cycles

Print Reading / GD&T ANSI/ASME Y14.5-2009

- Geometric Dimensioning & Tolerancing Symbols & definitions
- Interpreting GD&T from prints