



Lawrence County CTC
Skills USA District 10
January 16, 2012



AUTOMATED MANUFACTURING TECHNOLOGY
PERFORMANCE GUIDELINES

CONTEST AREA: Precision Machining Technology

I. Equipment / Tools / Materials / Supplied by Lawrence County CTC:

- Fadal EMC Machining Center (G-Code Fancuc style control)
- All Cutting Tools will be provided. (edge finder, end mills, etc)
- Aluminum blank

II. Contestant (TEAM) must bring:

- Two laptop computers for CAD/CAM: (Communication between the computer and the controller will be done by USB drive)
- A licensed version of CAD and CAM software must be installed on computers before competition begins.
- Calculator and measuring devices if desired.

III. Other information:

- Safe shop work clothes and footwear will be required for ALL team members.

IV. Scope of the contest:

- Teams will demonstrate their ability to create a CAD file from a sample part, generate a CAM program that will be used to machine the part, then be required to set up and machine a finished part from these files:
 1. Perform mathematical and measurement calculations from a sample part.
 2. Create CAD print (CAD, part file), so that CAM program can be created.
 3. Create Tool path (CAM, CNC Code file) and edit for Fancuc control.
 4. Perform set up procedures and CNC Machining Functions.
- All teams will start at same time. No late entries will be permitted. No contestant may continue after the allotted time has elapsed.
- Team may interact at will, HOWEVER; CAD operator will construct part geometry from a sample part, CAM operator will generate tool paths, and CNC operator will setup and machine the part.

Specific questions on the competition or equipment needed should call Mike Data,
Machine Tool Technology Instructor at
724-658-3583 extension 8142.