

Skills USA  
Michigan Automated Manufacturing Competition - 2009

NOTES

- A. Do not begin filling in your notebook before the competition officially starts.
- B. Tooling may not be installed in the machine or tool holders until the competition officially starts.
- C. Work holding devices may not be mounted on the machine until the competition officially starts.
- D. Do not write your name or school name on any document. Identify your team with your team letter or number that was given to you by SkillsUSA.
- E. If any team has a **catastrophic** equipment failure that is **beyond your control**, your team leader may request that the competition clock be stopped for your individual team. This will allow you time to attempt to make equipment repairs and get your team back in the competition. A judge will make the determination if your request is valid. While your team clock is stopped, **ALL** work must cease on any competition related activity and you should focus your efforts on getting your equipment repaired. When you are satisfied that you have corrected the problem, notify a judge who will re-start your teams clock. The maximum time allowance for this provision will be 60 minutes total for each team.
- F. Individual bathroom or food breaks may be taken at the team's discretion. Only one team member may leave at a time.
- G. Safety glasses must be worn when your CNC machine is running. There will be a 25 point penalty for each violation of this rule. The only (optional) exception is for team members who are actively engaged in using the computer for CAD or CAM purposes and located at least 4 feet from a running machine. These individuals must be seated and directly facing the computer monitor. If they leave the computer to work on a running CNC machine then they must wear safety glasses.
- H. REMINDER: Mark the bottom of your part with your team letter and turn it into a judge when you are satisfied that it is ready. The judge will mark the hand in time on the part. Once the part is turned in it will be taken to the CMM machine where it will be judged for accuracy. It is possible that you may not have access to it again during the competition.
- I. The prototyping material is RenShape 450. Its cutting specifications are .004" per tooth and 300ft. per minute surface speed. Material chipping will be judged as surface finish errors. Control your speeds and feeds accordingly.
- J. There is no guarantee that the raw material you received is square and true on all six sides. As would be expected in most industrial situations, it is expected that your first machining operation will be to face the entire top surface of your raw material before machining the part.