



2010 Maryland SkillsUSA Precision Machining Contest Information

TO: Precision Machining Instructors/Advisors and Interested Parties
FROM: Blaine E. Young Jr. – Engineering Technician, US Army, Fort Meade, Maryland –&– Adjunct Faculty (CAD), Frederick Community College, Frederick, Maryland – Precision Machining Competition Chair
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SUBJECT: 2010 Maryland SkillsUSA Precision Machining Contest

Item 1 – Date, Time and Location

The 2010 State SkillsUSA Precision Machining Skill Championships will be held Saturday, March 27th at the Center of Applied Technology North (CATN). The contest orientation will begin promptly at 8:00 a.m., and the contest will start at 8:30 a.m. **Bring or make arrangements to bring all tool boxes to the contest location.** Each individual will compete in 3 machining technology sections (milling, lathe, written skills test).

Item 2 – Clothing Requirements

As in the past, contestants will be penalized for not adhering to clothing requirements. Jewelry including rings and watches are not allowed during the contest. Contestants should not wear clothing that has school identification visible to the judges. Those contestants wearing program uniforms will need to cover all identifying patches. Steel-toe safety shoes are required during the entire event as are safety glasses (both listed on the tool/equipment list).

Item 3 – Judges

I will be inviting industry professionals to judge the event. Additional judges are welcomed but limited in number. Please contact me at least 1 week prior to the competition if interested.

Item 4 – Industry Gifts/Awards

Gifts and/or awards for the competition will be solicited. Your assistance would be helpful in securing additional gifts or awards from suppliers/vendors or industry contacts. If any instructor secures gifts or prizes please notify the contest chair and bring the items with you to the contest. If you are able to secure any industry awards they should be labeled with the name and address of the award sponsor. Items, excluding awards, should be of a quantity of 10 to 12. They will be dispensed pre-event. The

contest chair will take receipt of any awards and deliver them to the SkillsUSA Competition Coordinator, Charles Wallace, for presentation at the post-event ceremony.

Item 5 – Tools and Supplies

Each contestant will be required to bring toolboxes and their tools. Do not bring stock. Sharing boxes or tools will not be allowed. Contestants should bring the tools listed in the full tool list (Tool List 10) but below you will find a brief approximation of tools required for each stage of the contest.

<p style="text-align: center;"><u>Mill</u></p> <p>The mill project will be made of 1018 cold rolled steel. The material supplied will be 1" x 2" bar stock.</p> <p style="text-align: center;">Tools Required</p> <p>HSS End Mills: 1/4" & 1/2" (shank size is 3/4" max) Center Drill Drill Bit Set Reamer: .250" Set of Parallels (optional) Edge finder</p>	<p style="text-align: center;"><u>Lathe</u></p> <p>The Lathe project will be made of 6061 aluminum. The material supplied will be 1-1/8" diameter.</p> <p style="text-align: center;">Tools Required</p> <p>Center drill HSS Facing & Turning tool HSS Threading tool for 1/2'-13 external threads Grooving tool: .125" wide Drill Bit Set Dial Test Indicator</p>
<p style="text-align: center;"><u>Suggested Measurement Tools</u></p> <p>Steel ruler: 6" OD Mic's, 0-1" (.0001 scale) (with standard/gage block) 6" Dial or Vernier Caliper</p>	<p style="text-align: center;"><u>Other Suggested Tools/Equipment</u></p> <ul style="list-style-type: none"> - Pencil - Pocket calculator - Layout die - De-burring tools - Paper - Machinist Handbook - Scriber - Trig tables <p>**Tool List 10 file, and any other tools you think you might need!</p>

Item 6 – Safety

For safety reasons, safety glasses with side shields are required. Any minor safety violations will result in one verbal warning. Subsequent minor violations receive warnings and point deductions. Major violations or contestants demonstrating dangerous methods may deem automatic disqualification at judges' discretion.