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| Overview |
| Category DefinitionProjects produced by using Computer Numerical Control (CNC) or Computer Aided Manufacturing (CAM). As well as any project in which CNC mills, lathes, computer controlled Lasers, etc. are used to produce a final part.  |
| Project Presentation |
| Project guidelines |
| DocumentationDocumentation should include scaled working drawings, were needed. Documentation should also include the design process. Documentation should be enclosed in a clear cover sheet. |
| Project Judging:Judging will be based on degree of difficulty, appearance, finish, and craftsmanship. Student produced parts only, purchased parts will not be judged. |
|  | **Ind.** | **Team** | **Mass** |
| **1** | **2** | **3** |
| **WOOD – 4100** |
| **Mill / Router** |
| Single piece not exceeding 12" x 12"  | 4101 |  |  |  |
| Single piece exceeding 12" x 12"  | 4102 |  |  |  |
| 2 to 5 parts assembled | 4103 |  |  |  |
| 6 or more parts assembled | 4104 |  |  |  |
|  |  |  |  |  |
| **Lathe** |
| Single piece  | 4105 |  |  |  |
| Pen/Pencil Set  | 4106 |  |  |  |
| 2 or more parts assembled | 4107 |  |  |  |
|  |  |  |  |  |
| **Laser** |
| Single piece less than 8" x 10"  | 4108 |  |  |  |
| Single piece not exceeding18" x 32"  | 4109 |  |  |  |
| Single piece Rotary  | 4110 |  |  |  |
| 2 to 5 parts assembled | 4111 |  |  |  |
| 6 or more parts assembled | 4112 |  |  |  |
|  |  |  |  |  |
| **CNC/CAM – METAL – 4200** |
| **Mill / Router** |
| Single piece less than 8" x 10" | 4201 |  |  |  |
| Single piece not exceeding 16" x 20" | 4202 |  |  |  |
| 2 to 5 parts assembled | 4203 |  |  |  |
| 6 or more parts assembled | 4204 |  |  |  |
|  |  |  |  |  |
| **Lathe** |
| Single piece  | 4205 |  |  |  |
| Pen/Pencil Set  | 4206 |  |  |  |
| 2 or more parts assembled | 4207 |  |  |  |
|  |  |  |  |  |
| **Laser** |
| Single piece less than 8" x 10"  | 4208 |  |  |  |
| Single piece not exceeding 18" x 32"  | 4209 |  |  |  |
| Single piece Rotary  | 4210 |  |  |  |
| 2 to 5 parts assembled | 4211 |  |  |  |
| 6 or more parts assembled | 4212 |  |  |  |
|  |  |  |  |  |
| **CNC/CAM - OTHER MATERIAL – 4300** |
| **Mill / Router** |
| Single piece not exceeding 12" x 12" | 4301 |  |  |  |
| Single piece exceeding 12" x 12" | 4301 |  |  |  |
| 2 to 5 parts assembled | 4302 |  |  |  |
| 6 or more parts assembled | 4304 |  |  |  |
|  |  |  |  |  |
| **Lathe** |
| Single piece  | 4305 |  |  |  |
| Pen/Pencil Set  | 4306 |  |  |  |
| 2 or more parts assembled | 4307 |  |  |  |
|  |  |  |  |  |
| **Laser** |
| single piece less than 8" x 10"  | 4308 |  |  |  |
| single piece not exceeding 18" x 32"  | 4309 |  |  |  |
| Single piece Rotary  | 4310 |  |  |  |
| 2 to 5 parts assembled | 4311 |  |  |  |
| 6 or more parts assembled | 4312 |  |  |  |
|  |  |  |  |  |
| **Plasma Cutter** |
| single piece | 4313 |  |  |  |
| 2 or more assembled | 4314 |  |  |  |
|  |  |  |  |  |
| **3D Printer / Prototype Original Design**  |
| Single Part | 4315 |  |  |  |
| 2 to 5 parts assembled without adhesives | 4316 |  |  |  |
| 6 to 10 parts assembled without adhesives | 4317 |  |  |  |
| 11 or more parts assembled without adhesives | 4318 |  |  |  |
| 2 to 5 parts assembled with adhesives | 4319 |  |  |  |
| 6 to 10 parts assembled with adhesives | 4320 |  |  |  |
| 11 or more parts assembled with adhesives | 4321 |  |  |  |
|  |  |  |  |  |
| **Embroidery** |
| Single Design | 4322 |  |  |  |
| Multiple Designs | 4323 |  |  |  |
|  |  |  |  |  |
| **Vinyl Cutter** |
| Single Color | 4324 |  |  |  |
| Multi-Color | 4325 |  |  |  |