

Machining 1

Participant Resource Sheet



Machining is a set of various processes where raw material is shaped using tools and machines. This Level 1 badge is designed to introduce participants some of the machining processes. This badge is organized into 4 topics. To earn the badge, participants must successfully complete all items in each topic.

Mentors will certify the participant knowledge using the downloadable rubric.

Name: _____

Email used for badges: _____

<i>Topic</i>	<i>Task</i>	<i>Mentor Sign & Date</i>
Safety	Explain team safety rules and meet any team requirements to safely and properly use tools.	
Materials	Explain correct rotation direction to loosen and tighten screws, nuts, bolts, etc.	
Materials	Explain how bolts/nuts/screws are sized and what thread count means.	
Tools	List common hand tools and explain what they are used for and how they are used – confirm the correct tool for the correct job.	
Tools	List common power tools and explain their use.	
Tools	Use rulers and measuring tapes to accurately measure both size of objects and positions to drill holes.	
Tools	Describe how and when to use the following measuring tools: rulers, tape measures, calipers, and micrometers	
Operations	Lay out holes with tape/ruler and drill using drill press or hand drill.	
Operations	Cut pieces measured by tape/ruler with available tools.	
Operations	Properly hand tap holes using tap and tapping fluid.	
Operations	Debur parts cut or drilled	

Badge Completed Date: _____

Date Submitted: _____