

## OCTELAB SAFETY NET

### APPENDIX A - PROJECT / LEARNING ACTIVITY MATERIALS, PHYSICAL RESOURCES

PROJECT / LEARNING ACTIVITY TITLE: Sumobot

COURSE CODE AND TITLE: TMJ 3M

VERSION PREPARED DATE: 23 April 2012

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### PROJECT / LEARNING ACTIVITY MATERIALS LIST FOR THIS PROJECT / LEARNING ACTIVITY

MATERIAL	QUANTITY	DESCRIPTION	SOURCE	WHMIS MSDS ATTACHED	SAFE STORAGE	WASTE DISPOSAL
Aluminum	1. Superstructure: ¾" X 80"/student	1. Square stock	[ x ] new, purchased	[ ] Y	Secured in racks	Metal recycling
	2. Wheels: 3.5" X ½". Two each.	2. Round stock	[ x ] new, donated from community, industry	[ x ] N		
	3. Chassis: 6" X 3" X 1/2"	3. Bar stock	[ ] recycled from inside school			
Steel	4. .187" X 15"	4. Round stock	[ ] recycled from outside school			
			PREPARATION REQUIRED FOR USE: DETAILS: Pre-cut to rough sizes			

Plastic spur gears	2 sets per student	5 per set. Only need the 100, 60, 20 & 16 teeth gears.	<p>[ x ] new, purchased from hobby supply store. eg. kiddier.ca</p> <p>[   ] new, donated from community, industry</p> <p>[   ] recycled from inside school</p> <p>[   ] recycled from outside school</p> <p>PREPARATION REQUIRED FOR USE: DETAILS: Layout the 100 tooth gear for two drilled holes so it can be screwed onto inside of wheel. It needs to be aligned with the wheels axle center.</p>	N/A	Box	N/A
Motors	2	DC 1.5 - 6 Volts	New. Purchased from hobby supply store.	N/A	Box	N/A
Miscellaneous Elastic bands	2	$\frac{3}{8}$ " thick to fit on finished wheels for traction.	Donated	N/A	Box	N/A
Wire	2 X 1'	Attach to motor so motor can attach to tether on controller.	Bulk from industrial supply store	N/A	Spool	N/A
Zip ties	4	Plastic. To attach motors.	Bulk from industrial supply store	N/A	Bag	N/A

## PHYSICAL RESOURCES USED FOR THIS PROJECT / LEARNING ACTIVITY

EQUIPMENT, TOOL, MACHINE	SUBJECT – SPECIFIC NEEDS	INSPECTED FOR SAFETY FEATURES	STUDENT TRAINING PLAN IDENTIFIED	MAINTENANCE SCHEDULE
<p>NOTE: TEACHER EXPERIENCE AND SAFETY PROFICIENCY IS ASSUMED.</p> <p>DETAIL EQUIPMENT: Bandsaw with appropriate blade.</p> <p>MANUAL APPLICABLE / AVAILABLE (LOCATION): Not usually</p>	<p>MACHINE GUARDING AND SHIELDING APPLICABLE</p> <p>[ x ] YES [ ] NO [ ] N/A</p> <p>EMERGENCY STOP / PANIC BUTTON APPLICABLE</p> <p>[ x ] YES [ ] NO [ ] N/A</p> <p>LOCK-OUT TAG APPLICABLE</p> <p>[ x ] YES [ ] NO [ ] N/A</p> <p>OTHER (SUBJECT-SPECIFIC)</p> <p>[ ] YES [ ] NO [ x ] N/A</p>	<p>[ x ] Teacher DATE: _____</p> <p>[ x ] Board DATE: _____</p>	<p>DETAIL STEPS: Yes. See attached safety documents and safety template.</p> <p>SIGNAGE:</p> <p>RESOURCES:</p> <p>FREQUENCY OF RETRAINING ADVISED: Each semester or more often as needed.</p>	<p>DAILY: Cleaning after use.</p> <p>WEEKLY: Adjustments.</p> <p>MONTHLY: Check blade. Change if needed.</p> <p>ANNUALLY: Recommended.</p> <p>CONTACT FOR REPAIR: Varies by board and location. See you department head.</p>
<p>NOTE: TEACHER EXPERIENCE AND SAFETY PROFICIENCY IS ASSUMED.</p> <p>DETAIL EQUIPMENT: Milling machine and tooling including cutters and drills.</p> <p>MANUAL APPLICABLE / AVAILABLE (LOCATION): Not usually</p>	<p>MACHINE GUARDING AND SHIELDING APPLICABLE</p> <p>[ x ] YES [ ] NO [ ] N/A</p> <p>EMERGENCY STOP / PANIC BUTTON APPLICABLE</p> <p>[ x ] YES [ ] NO [ ] N/A</p> <p>LOCK-OUT TAG APPLICABLE</p>	<p>[ x ] Teacher DATE: _____</p> <p>[ x ] Board DATE: _____</p>	<p>DETAIL STEPS: Yes. See attached safety documents and safety template.</p> <p>SIGNAGE:</p> <p>RESOURCES:</p>	<p>DAILY: Cleaning after use.</p> <p>WEEKLY: Lubrication</p> <p>MONTHLY:</p> <p>ANNUALLY: Recommended</p>

	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> N/A OTHER (SUBJECT-SPECIFIC) <input type="checkbox"/> YES <input type="checkbox"/> NO <input checked="" type="checkbox"/> N/A		FREQUENCY OF RETRAINING ADVISED: Each semester or more often as needed.	CONTACT FOR REPAIR: Varies by board and location. See your department head.
NOTE: TEACHER EXPERIENCE AND SAFETY PROFICIENCY IS ASSUMED.  DETAIL EQUIPMENT: Lathe and tooling plus turning, parting and drilling tools.  MANUAL APPLICABLE / AVAILABLE (LOCATION): Not usually.	MACHINE GUARDING AND SHIELDING APPLICABLE <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> N/A EMERGENCY STOP / PANIC BUTTON APPLICABLE <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> N/A LOCK-OUT TAG APPLICABLE <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> N/A OTHER (SUBJECT-SPECIFIC) <input type="checkbox"/> YES <input type="checkbox"/> NO <input checked="" type="checkbox"/> N/A	<input checked="" type="checkbox"/> Teacher DATE: _____ <input checked="" type="checkbox"/> Board DATE: _____	DETAIL STEPS: Yes. See attached safety documents and safety template.  SIGNAGE:  RESOURCES:  FREQUENCY OF RETRAINING ADVISED: Each semester or more often as needed.	DAILY: Cleaning after use.  WEEKLY: Lubrication  MONTHLY:  ANNUALLY: Recommended  CONTACT FOR REPAIR: Varies by board. See your department head.
NOTE: TEACHER EXPERIENCE AND SAFETY PROFICIENCY IS ASSUMED.  DETAIL EQUIPMENT: MIG Welder with aluminum spool feeder. Appropriate aluminum wire. Argon gas. Safety equipment.	MACHINE GUARDING AND SHIELDING APPLICABLE <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> N/A EMERGENCY STOP / PANIC BUTTON APPLICABLE <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO <input type="checkbox"/> N/A	<input checked="" type="checkbox"/> Teacher DATE: _____ <input checked="" type="checkbox"/> Board DATE: _____	DETAIL STEPS: Yes. See attached safety documents and safety template.  SIGNAGE:	DAILY: Make sure all covers are in place. Putting everything away neatly and cleaning up area.  WEEKLY:

<p>MANUAL APPLICABLE / AVAILABLE (LOCATION): Yes. Or one can be obtained from supplier.</p>	<p>LOCK-OUT TAG APPLICABLE  <input checked="" type="checkbox"/> YES  <input type="checkbox"/> NO  <input type="checkbox"/> N/A  OTHER (SUBJECT-SPECIFIC)  Check current board standards for welding machine installation and safety protocol. Verify grounding procedure.  <input checked="" type="checkbox"/> YES  <input type="checkbox"/> NO  <input type="checkbox"/> N/A</p>		<p>RESOURCES: Suppliers for your welding equipment.</p> <p>FREQUENCY OF RETRAINING ADVISED:  Each semester or more often as needed.</p>	<p>MONTHLY:</p> <p>ANNUALLY:  Recommended</p> <p>CONTACT FOR REPAIR:  Varies by board and</p>
<p>NOTE: TEACHER EXPERIENCE AND SAFETY PROFICIENCY IS ASSUMED.</p> <p>DETAIL EQUIPMENT: Hand tools: Hammer, file, hacksaw.</p> <p>MANUAL APPLICABLE / AVAILABLE (LOCATION):</p>	<p>MACHINE GUARDING AND SHIELDING APPLICABLE  <input type="checkbox"/> YES  <input type="checkbox"/> NO  <input checked="" type="checkbox"/> N/A  EMERGENCY STOP / PANIC BUTTON APPLICABLE  <input type="checkbox"/> YES  <input type="checkbox"/> NO  <input checked="" type="checkbox"/> N/A  LOCK-OUT TAG APPLICABLE  <input type="checkbox"/> YES  <input type="checkbox"/> NO  <input checked="" type="checkbox"/> N/A  OTHER (SUBJECT-SPECIFIC)  <input type="checkbox"/> YES  <input type="checkbox"/> NO  <input checked="" type="checkbox"/> N/A</p>	<p><input type="checkbox"/> Teacher  DATE: _____</p> <p><input type="checkbox"/> Board  DATE: _____</p>	<p>DETAIL STEPS: Yes. See attached safety documents and safety template.</p> <p>SIGNAGE:</p> <p>RESOURCES:</p> <p>FREQUENCY OF RETRAINING ADVISED:</p>	<p>DAILY: Visual check before use.</p> <p>WEEKLY:</p> <p>MONTHLY:</p> <p>ANNUALLY:</p> <p>CONTACT FOR REPAIR:  Repair or replace yourself according to department policy.</p>