

Equipment, Technical and Other Needs in Technology Programs

1. From Sam Obi:
 - a. New conventional metal turning lathes (12)
 - b. New drilling machines (6)
 - c. New vertical sawing machines (6)
 - d. New horizontal sawing machines (3)
 - e. New power hack sawing machines (2)
 - f. New coordinate measuring machines (2)
 - g. High-end 3D printers for different materials including metals (4)
 - h. Belt conveyors to support CIM lab (2)
 - i. Vision inspection system to support CIM lab (2)
 - j. Programmable logic controllers to support CIM lab (2)
 - k. A variety of needs in CNSM program
 - l. Lab space for growing enrollment
 - m. Outreach to area companies for internship opportunities
2. From Doug Muntz:
 - a. ACRA vertical Milling machine \$8950
 - b. ACRA lathe \$9795.
 - c. used Bridgeport mill
 - d. small tool room lathe like a HardingeTooling needs include:
 - a. Drill sets, fractions, numbers and letters.
 - b. HSS end mills
 - c. Countersinks
 - d. center drills
 - e. 3/8 sq lathe tool bitsMaterial needs include:
 - a. Aluminum round bar
 - b. aluminum square
 - c. steel CR round and square
3. From David Yan:
 - a. Compact CNC milling machine (\$10,000)
 - b. Metal printer machine
 - c. Fiber printing machine
 - d. Grinding machine - Struers LaboPol-1 \$4k
 - e. Polishing machine - Struers LaboForce-3 \$4k
 - f. Inverted Metallurgical Microscope - Nikon Eclipse MA100 (used) \$3k
 - g. 6061-T6 SHEET / PLATE
 - i. 0.16" ALUMINUM 6061-T6 BARE SHEET PVC 1 SIDE
 - ii. 0.19" ALUMINUM 6061-T6 BARE SHEET PVC 1 SIDE
 - iii. Thickness=0.25" ALUMINUM PLATE 6061-T651
(8 inches x 8 inches - \$10.20)
(12 inches x 12 inches - \$31.72)
(12 inches x 24 inches - \$61.24)
 - h. FSW tools - A Series Adjustable Tool (Excellent option for higher strength or thicker aluminum welds with adjustable pins.

SPECIFICATIONS Tips: MP159 Shank/Shoulder: H13 Shank Size: 1 inch, 25mm, 38mm, 50mm or custom Shoulder Diameter: 25mm, 38mm, 50mm or custom Threading: C4 or MM \$500)

- i. CHARLYROBOT 2U compact milling machine
- j. Soft skills training videos (need up to date version)
4. From Fariah Mahzabeen, for Tech 60 lab at IS117:
 - a. Soldering stations:
 - i. Soldering iron
 - ii. Solder wire
 - iii. Soldering boards
 - b. Capacitors
 - c. Inductors
 - d. Transistors
5. From Ed Cydzik, for Tech 190A/B:
 - a. SD cards
 - b. 3D printing material
6. From Ross Benz for Tech 146:
 - a. A supplement to the FDM printers (Ultimakers)
 - b. Formlabs Form 2
 - c. Consumables
7. From Foroozan Koushan:
 - a. HP/Agilent 4145 for measurement of DC characterization of transistors, (IDVD, IDVG, etc) and Kelvin measurements of resistors
8. From Manizheh Zand:

Financial Needs in Technology Programs

1. Lab assistant to support and maintain the labs (2)
2. Tooling cost to support technical needs
3. Money to support student professional developments
4. Money to support faculty professional development
5. Money to support faculty professional development

Student Needs in Technology Programs

1. Internships
2. Independent studies
3. Research
4. Senior project sponsorships
5. Jobs