

UNIVERSITY OF LOUISIANA AT LAFAYETTE

STEP Committee

Technology Fee Application

CNC Machining Center Replacement

Title

Robert Vanderlink

Name of Submitter

Engineering

Organization

Title: CNC Mill Replacement Date: 06-20-2018
Name (Contact Person): Robert Vanderlink
Address: Rougeou Hall Room 136
Phone Number: 2-1012 Email: rjv8692@louisiana.edu
Department/College/Org: Industrial Technology/Engineering

ABSTRACT (250 words or less):

Our current Computer-Numerical-Control (CNC) mill is over 23 years old. It has served us well for those years, but is approaching the end of its usefulness. It has reached the point that we have had to spend several thousand dollars the last few years to maintain the machine.

A. Purpose of Grant and Impact on Student Body:

- 1. Replacement of the current machine will offer us several features not available on our current machine. Students in several curriculums will benefit by being trained on the latest equipment. These machines are used everywhere in automated machine shops in this area, including oilfield, medical, and prototype machining specialties. This will maintain the competitive edge our students enjoy after taking these courses when it comes to job & career opportunities. The advanced training offered by the Industrial Technology and Mechanical Engineering departments will utilize all the features of this machine.**
- 2. This type of machine is used in several courses taught in the College of Engineering. They are popular courses & always full, as they are “hands on” courses & very desirable by students.**
- 3. Many advanced students currently are involved in research projects using our current CNC machine. Having a new one will allow them to do more advanced projects that are not possible with the current one. Students will value leaving a program having experienced cutting edge technologies which they can bring to businesses and other educators.**
- 4. For many years, we have produced items such as the brass medallions given to our graduation ceremony speakers using our current machine. A new one will allow us to produce more 3D types of items to show our community what the efforts of our students can produce.**

Dr. Fabrice Leroy, Assistant Vice President for Academic Affairs, as well as Mickey Diez University Registrar, are in full support of this effort, as they both are aware of the difficulties we currently are experiencing programming and producing the medals given during graduation to our outstanding graduates, as well as the Commencement Speaker.

B. The Projected Lifetime of Enhancement:

This CNC machine is expected to last for at least 20 years, given the continuous improvements of these machines. Their cost has dropped by over 50% since we acquired our original one.

C. Person responsible for:

- | | |
|--------------------------|--|
| i. Implementation | Harvey Ozbirn, College of Engineering |
| ii. Installation | Manufacturer |
| iii. Maintenance | Robert Vanderlink, College of Engineering |
| iv. Operation | Robert Vanderlink, College of Engineering |
| v. Training | Provided at no additional charge by manufacturer. |

D. Narrative of the proposal:

The new CNC machine will be used for teaching, advanced projects, & research. The old machine will be dedicated to short-term student projects such as fabrication of parts for the Mechanical Engineering's BAJA competition, as long as we can feasibly keep it running.

Budget Proposal

1.	Equipment	\$82,343.00 for VF-1 Vertical Machining Center. Vendor has included several Options worth several thousand dollars, as well as an extended warranty, at no cost. ** Quote Attached **
2.	Supplies	\$0.0
3.	Maintenance	\$0.0
4.	Personnel	\$0.0
5.	Other	\$0.0
TOTAL:		\$82,343.00

6. Robert Vanderlink has not had a STEP grant funded.