

**SBIR 06.2 PHASE I - AWARD DETAILS****ORGANIZATION**

ARDEC

**TOPIC NUMBER**

A06-047

**CONTRACT NUMBER****YEAR OF AWARD****AWARD START DATE****AWARD COMPLETION DATE****PROPOSAL NUMBER**

A062-047-0756

**TITLE**

Innovative Hardware-Based Chip Control Tool Holder

**PROJECT MANAGER**

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**COMPANY**

Erigo Technologies LLC  
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Minority Owned: No  
Woman Owned: No  
Veteran Owned: No  
Number of Employees: 5

**KEYWORDS**

lathe, tool holder, precision machining

**ABSTRACT**

The formation of continuous chips during metal fabrication adversely affects production times, worker safety, and production costs. The Army's ever increasing need for greater mobility and lethality demand greater precision in the machining of traditionally hard-to-machine materials, while balancing cost. Erigo Technologies LLC proposes to develop a replacement tool holder for lathes that will improve machined part precision and quality, eliminate large continuous chips, enable higher cutting speeds, and reduce tool wear. In Phase I we will design, build, and test a replacement for a standard tool holder.

**BENEFITS**

These results will allow for the development of a prototype system in Phase II that will be rigorously tested in a production setting. Our replacement tool holder will simultaneously break chips, improve part precision and quality, enable higher cutting speeds, and reduce tool wear.