UNC CHARLOTTE
The WILLIAM STATES LEE COLLEGE *of* ENGINEERING

Senior Design Project Description for SPRING 2016
Project Title: SMED Improvement (SIEM_SMED)

Supporter: Siemens
Supporter Technical Representative: ASSIGNED
Faculty Mentor: _____ ASSIGNED __X__ TBD (check one)
Single Team __X____ Dual Team _____ (check one)
Personnel (EN/ET): _____ E, _____ Cp, _____ Cv, __5__ M, _____ SE
(Complete if the number of students required is known)
Expected person-hours: (250 per student)

Description of Project:

Currently the changeover of a die (SMED – Single Minute Exchange of a Die) is a bottleneck in component fabrication. This project is to design a method to improve the die changeover (Quick Changeover) of Fixturing to Rotary Table. (See the picture below.)Multiple Fixtures to be quickly and accurately set on Rotary Table with minimal operator interaction.

Initial Project Requirements (e.g. weight, size, etc.):

The changeover and set-up should be accomplished in less than 30 minutes. Multiple Fixtures should be quickly and accurately set on the Rotary Table with minimal operator interaction. The design should include looking at and measuring several exiting fixtures and how they can be drilled out and pinned to a Standard Size Rotary Table. The Rotary Table is approximately 65" long x 55" wide.

Expected Deliverables/Results:

The design should be summarized in a report. The report is to include drawings and pictures as required to provide a complete explanation of the design.

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List here any specific skills or knowledge needed or suggested (If none please state none):

Tool Design
Precision Measuring