YEAR 2: 2021-2022
Project DeSIRE Update

Developing STEM Identity through Research and Exploration

NC STATE UNIVERSITY

National Science Foundation

NSF Award# 1949454

Project DeSIRE executed the 6th and 7th grade courses at our partner schools and provided timely PD to support teachers in course implementation. **Year 2 Summary:**

STUDENT ENGAGEMENT

Project DeSIRE Schools

- Phillips Middle School
- West Edgecombe Middle School

Supplemental STEM Enrichment

- NC Mathematics and Science Education Network (MSEN) Saturday Academy & Summer Scholars Programs

52
6th/7th grade students in DeSIRE Course (across both schools)

32
Participants in MSEN Saturday Academy

23
Participants in MSEN Summer Scholars

DeSIRE COURSES

Focused Learning Outcomes:

- Advanced Manufacturing
- Engineering Design Process
- Intro to Microsoft Excel

Duration:

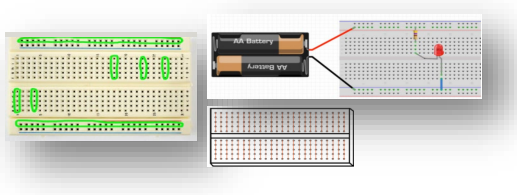
- 9-weeks each quarter

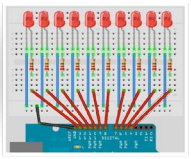
Professional Development

- Monthly Teacher PDs

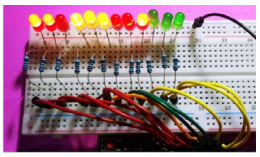
3
Highlighted Industries:
Pharmaceutical
Energy Systems
Food Processing

COURSE ACTIVITIES

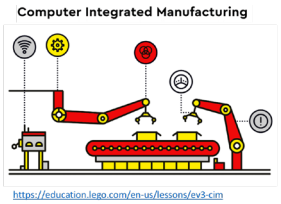




Tinkercad simulation



Advanced Manufacturing - Engineering Design of Automation



Mock Factory Robot Challenge

SUCCESSES and CHALLENGES

Some Successes

- Executed 6th and 7th grade courses at both schools
- High level teacher and student engagement in DeSIRE courses and MSEN STEM programs

Some Challenges

- Establishing synergy between schools
- Virtual mentoring
- Informed Consent for Research

NEXT STEPS

Course development

- Final Presentations for Cohort 1 (8th graders)
- Common project across both schools
- Increase industry presence