

## **“Apply CSI Skills” Capstone Project**

Students will create a product/portfolio that will give them the opportunity to demonstrate the following skills:

- Effective communication
- Creativity
- Trouble-shooting
- Leadership
- Problem-solving
- Craftmanship
- Networking/Interpersonal Relationships
- Community Engagement

Establish “Industry Contact” for product/portfolio Review

Submit Contact Information to Mr. Jenkins by January 31<sup>st</sup>.

Video Presentation Requirement – May 10<sup>th</sup>.

### **IMPORTANT DATES:**

Proposal for Product – Friday, January 31<sup>st</sup>. (ET/MECH Grade)

Proposal for Research DUE in English 12 – TBD (English Grade)

Research Paper DUE in English 12 via turnitin.com – April-ish (English Grade)

Product DUE Monday, May 6<sup>th</sup> (ET/MECH Grade)

Engineering Binder DUE – Monday, May 6<sup>th</sup> (ET/MECH AND English Grade)

Video Presentation Uploaded by Friday, May 10<sup>th</sup> (ET/MECH Grade)

Video Reviewed by Industry Contact by Wednesday, May 22<sup>nd</sup> (ET/MECH Grade)

Final Product Displayed at Senior Ceremony on May 28<sup>th</sup> (Final Exam ET/MECH Grade)

## **Engineering/Mechatronics**

Usable Skills:

- Electronic Design
- Programming
- 3D Printing
- Robotics
- Solidworks rendering
- Sensor Technologies
- Pneumatics

Capstone Project:

The Capstone Project is the design, development and implementation of a student defined product. The expectations are that the students will use the knowledge/usable skills they gained in Mechatronics and Engineering Technology to develop their product.

Engineering Binder must include:

- Proposal
- Proposal for Research
- Evidence of Research -- Research Paper
- Ideate/brainstorming documentation
- Design documentation such as Solidworks or schematic drawings
- Prototype/Build documentation such as pictures
- Testing results with analysis
- Final Product Reflection

Final Product to be displayed at Senior Ceremony