**“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 February \_\_\_\_\_\_\_\_

Video Presentation Requirement -- May

**IMPORTANT DATES:**

Proposal for Product – Friday, February 8, 2019 (ET/MECH Grade)

Proposal for Research DUE in English 12 – Wednesday, February 27th (English Grade)

Research Paper DUE in English 12 via turnitin.com – Tuesday, April 23rd (English Grade)

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

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

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

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

Final Product Displayed at Senior Ceremony on Wednesday, May 29th (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