Engineering student organizations often emulate industry practices for managing and completing projects. Similarly, mechanical engineering design courses do the same by utilizing Design for Six Sigma. These projects differ in scope compared to industry in that they are typically limited to one or two semesters with a smaller budget.

One method of organizing such projects is Systems Engineering. NASA defines systems engineering as “a methodical, multi-disciplinary approach for the design, realization, technical management, operations, and retirement of a system. A ‘system’ is the combination of elements that function together to produce the capability required to meet a need.” [1] This project aims to curate an electronic systems engineering toolbox that can be used by students in order to streamline the systems engineering process.

The systems engineering approaches created in this project were applied to the Cardinal Space Mining (CSM) student organization at Iowa State University. Each year, CSM competes in the annual NASA Robotic Mining Competition at Kennedy Space Center. Teams are scored on their use of systems engineering to guide the project, specifically using the same framework as NASA. The toolbox was developed to be applicable not only to CSM, but also other student organizations and design courses within the College of Engineering.

### Reference
