

As a NASA intern, I have performed meaningful work on components of the Internal Thermal Control System (ITCS), designing a gas trap mechanism to ensure the longevity of the coolant pump. Additionally, I am developing an overview on Nuclear Electric Propulsion (NEP) to take us to Mars and beyond. I have learned an incredible amount pertaining to heat transfer and maximizing thermal conductivity through electron and phonon mobility, radiation and radiator design for maximizing emissivity, membrane permeability to control mass flow, and acquired professional skills to perform thorough research and develop a testing procedure and plan. The experience has been truly incredible; I feel I have grown substantially as a person, a student, and as an engineer. This experience has opened many paths for the future and demonstrated the epitome of engineering design at one of the most respected and well structured organizations in the world -- the National Aeronautics and Space Administration.