## **ABSTRACT**

This thesis contains information on how a shock reducing industrial grade castor wheel can be developed for industrial purposes. During the research phase it was investigated for prior arts and was designed to be efficient than existing standard models. The intended design purpose of this project was targeted at the medical industry and chemical industry where castor wheels are implemented on various platforms for delivery of patients at hospitals and dangerous and vigorous substances at chemical factories. The thesis further discusses the results obtained through calculations and tests such as stress, strain and vibration. During the process a vast knowledge was gathered in various manufacturing processes and techniques to overcome issues that rose during the development.

