# Abstract

Professor Tali Freed, advisor of POLY GAIT, needs a warehouse built to accommodate the testing of Radio Frequency Identification (RFID) technology with Automatic Storage and Retrieval Systems (AS/RS). This report explores a 5-step warehouse designing technique. The five steps are as follows: Overall Structure, Sizing and Dimensioning, Operation Strategy Selection, Equipment Selection, and Department Layout. Each of these is analyzed in turn to cover everything necessary in designing a warehouse. Furthermore, a cost analysis was conducted in order to give Professor Freed a better understanding on the cost required to build this warehouse. A smaller 25’x22’ foot is optimal because it would meet all the requirements set by Professor Freed and would cost the least (about $45,000). Lastly a basic simulation model was be created in order to provide POLY GAIT with a tool to input their data once it is collected to test the AS/R system without the cost of actually using it.