

Senior Design Project Description for SPRING 2016

Project Title: Box Scanner (SEAIR_SCAN)

Supporter: Sealed Air

Supporter Technical Representative: ASSIGNED

Faculty Mentor: _____ ASSIGNED TBD (check one)

Single Team Dual Team _____ (check one)

Personnel (EN/ET): _____ E, _____ Cp, _____ Cv, _____ M, _____ SE

(Complete if the number of students required is known)

Expected person-hours: (250 per student)

Description of Project:

Sealed Air is a world leader and innovator in supplying packaging solutions for many industries. When filling a package there is currently no method of ascertaining the void volume in the package so that the amount of packing filler can be accurately determined. This project will develop a method to accurately determine the void volume for packages as they traverse a conveyor.

Initial Project Requirements (e.g. weight, size, etc.):

The optimum method to scan packages must be investigated. It will “scan” the package and calculate the void volume (i.e. volume not occupied by the object within the package). The calculated volume will be displayed on a screen. Requirements for the device are:

- Stand alone
- Capable of working with different sizes of packages
- Capable of working with different conveyor speeds
- Capable of being fixed to the conveyor frame

The range of package sizes and conveyor speeds will be provided at the start of the project.

Expected Deliverables/Results:

The deliverable will be a working prototype that has been verified through testing. An operating manual will be included.

List here any specific skills or knowledge needed or suggested (If none please state none):

None