UNC CHARLOTTE
The WILLIAM STATES LEE COLLEGE *of* ENGINEERING

Senior Design Project Description for SPRING 2017
Project Title: Waste Reduction (LEG_WASTE)

Supporter: Legrand, North America
Supporter Technical Representative: ASSIGNED
Faculty Mentor: __X__ ASSIGNED _____ TBD (check one)
Single Team __X__ Dual Team _____ (check one)
Personnel (EN/ET): _____ E, _____ Cp, _____ Cv, __4__ M, __2__ SE
(Complete if the number of students required is known)
Expected person-hours: (250 per student)

Description of Project:

Legrand extrudes PVC plastic raceway. This raceway serves to route and hide wires for speakers and corded electrical devices around the home and in schools and businesses. It typically mounts to walls and baseboards using double sided tape and screws. When there is a defect on the surface finish of the raceway, the product must be scraped due the presence of the tape. Currently this product is thrown away into the landfill, costing Legrand money and also hindering Legrand from meeting our environmental goal of zero landfill waste by 2022.

This project is to develop a cost effective method to remove the tape from the raceway. This would allow Legrand to regrind the pvc raceway for reuse in the process or in worst case, send it to a recycler.

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

The tape must be sufficiently removed so that the raceway can either be removed or recycled. Mechanical and chemical methods of tape removal are acceptable.

Expected Deliverables/Results:

The deliverable will be a proof of concept.

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

None