Eco-Packaging

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Factories in Egypt use wood as a packaging material. This has high cost relative to the product (pipes), which break due to their rigidity, and consequently affects the Egyptian industrial economy. As wood is a very precious environmental material, this project aims to replace the wood by a low costly material, that can be recycled to save the global environment, and preserve the pipes as a packaging material. The material proposed is prefabricated foam. A prototype was constructed that will work to cut, make holes in the foam, and insert the pipes all automatically. The cost was calculated, and a cost reduction was found to be about 90% which is very beneficial to the Egyptian industrial economy. Conclusions show that foam offers an alternative way that is cheaper, preserves pipes better, and can save up to 90% of packaging costs per pipe. It is worth mentioning that the used foam could be about 100% reused in the same process.

Awards Won: