

Design and Fabrication of Cost-Effective Composting for Easy Decomposing of Home Wastes

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Abstract: *The primary objective is to develop a Household waste Decomposer that not only composting the kitchen waste but also ensures quick decomposition while minimizing odors. Our design integrates innovative features, such as a compact and user-friendly composting unit, utilizing a controlled aeration system to accelerate the composting process. This aeration system promotes optimal conditions for microbial activity, enhancing the breakdown of organic matter. Another one method added to using decomposer sand. Decomposition sand is a biological process that includes the physical breakdown and biochemical transformation of complex organic molecules of dead material into simpler organic and inorganic molecules. There are two effective system used in Household waste Decomposer. This composting process create a bad smell, so that we are using high suction power exhaust fan. In this suction fans is pull a Odorant particles throw out to the atmospheric air. Food waste and decomposer sand is mixed well before pouring in top of the hopper. Food waste and decomposer mixer breakdown the particles like (leaf and tomato and other kitchen veg, waste food) using grinding method. Traditional composting methods are slow decomposing and high level of odor form. Now odor free decomposer and quick decomposer at a same time cost effective home decomposing. Household waste Decomposer suitable for trace garden.*

Keywords: Household waste Decomposer