Smart Compost: A Proposal of Biotechnological Application

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The concept of sustainability provides the framework for this technological project. The study consists in designing and creating a device to recycle organic household waste, with the objective to make compost, i.e. a natural organic fertilizer, which could be used in gardening as well as in horticulture. It is highlighted that in our country does not exist a tool for urban compost. Taking advantage of this situation, we had the idea of creating a domestic compost bin model, with an original design. The objective of this study is to create a technological product which enables the user to produce this organic fertilizer, in an environmentally friendly way, resignifying the practice of composting. After looking for information and analyzing a variety of possible materials for creating it, the result was a device adapted to local resources that improves what already exists internationally. It is innovative in terms of design, practicality, adaptability and esthetic. Furthermore, we are working to incorporate electronics engineering technology through designing and installing software that will enable us to monitor and control the compost performance. The device has a handbook that offers basic information regarding the composting process, instructions about how to use the compost bin and useful advices. The obtained actions and results respond to the sustainable development idea and CTSA current approach, proposed to this project.

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