Design of a Low Cost Machine for Packaging Coffee Beans with a Storage Capacity of 100 Kg for Traditional Crops of Independent Producers in Junin

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*Abstract*—The main objective of the following paper is to present the conception of the design of a low-cost machine that allows the packaging of high -altitude coffee. Coffee is one of the main raw materials traded in the world. It is even the first Peruvian agricultural product for export; however, the low level of production and productivity generates poorness and low profitability. Packaging is one of the main factors that makes the difference between good and poor-quality coffee. In order to carry out this process properly and to be able to measure and improve productivity, a packaging machine with IoT technology is proposed to be used by independent producers. This paper will explain the electronic, mechanical and control design considerations taken into account for the future implementation of the proposed system.

Keywords— vacuum packaging, degassing valves, helical screw, black box, 3d design.

# Introduction

The present project makes use of information on the coffee bean dosing process, on the appropriate materials to use in the bags, first-hand information from coffee producers from different departments of Peru, as well as the filling, sealing and cutting process of the bags. Therefore, reliable results are expected to be achieved in the high altitude coffee bean packaging process.

# Conceptual Design

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*a**b* 

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