Patent Search

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Abstract:

The present invention provides a smart inhaler that revolutionizes respiratory care by integrating sensors and a processing unit to analyze real-time inhalation patter differential pressure sensors, flow sensors, and accelerometers, it captures data during usage, allowing the device to identify deviations from prescribed patterns. A u interface provides immediate feedback, encouraging proper technique. Wireless connectivity enables secure data transmission to healthcare platforms, fostering rem monitoring and personalized treatment plans. This transformative approach enhances patient adherence and facilitates data-driven decisions for healthcare provide inhaler's method involves capturing and processing inhalation data, delivering actionable insights to patients and professionals. This invention heralds a new era in re healthcare, emphasizing improved adherence and personalized treatments for better patient outcomes.

Complete Specification

Description:Field of the Invention

The present invention relates to the field of respiratory healthcare devices, specifically to smart inhalers equipped with real-time inhalation pattern analysis. The inv provides a novel method for monitoring and analyzing inhalation patterns, offering valuable insights into patient adherence, disease management, and personalize treatment plans.

Background

Respiratory diseases, such as asthma and chronic obstructive pulmonary disease (COPD), are significant global health concerns. Inhaler devices have long been the cornerstone of managing these conditions, providing patients with quick and targeted medication delivery. However, traditional inhalers lack the ability to capture a analyze the intricate details of a patient's inhalation patterns, impeding healthcare providers' ability to assess treatment adherence and efficacy accurately.

Existing solutions predominantly rely on patient self-reporting, which is subjective and prone to inaccuracies. Some attempts have been made to incorporate basic i usage tracking through mechanical counters or electronic modules. Still, these solutions fail to provide a detailed analysis of the inhalation process. Moreover, thes devices often lack real-time feedback mechanisms, hindering their potential to positively influence patient behavior and adherence to prescribed inhalation techniq

The limitations of current inhaler technologies underscore the need for a more sophisticated and integrated solution. A smart inhaler that not only records inhalatio events but also analyzes real-time data to offer immediate feedback to patients and actionable insights to healthcare providers would represent a significant advan in respiratory care.

Summary of the Invention:

View Application Status