

# Handheld Solid Dispenser Using a Motor-Driven Auger

## Background

Solid materials' weighing and dispensing have always been very cumbersome in scientific experiments. Typically, a researcher needs to prepare materials of a similar mass into multiple containers where lots of time and effort are required to perform such chores. In some cases whereby the solid chemical is hazardous, this task can pose a significant safety concern. Presently, solid dispensing technology can only be found as integrated modules in large and costly automated instruments, render it unsuitable for generic lab use.

## Abstract

This portable solid dispenser (Fig 1) will help facilitate solid materials weighing. It makes use of a motor-driven auger for solid dispensing with a consistency of more than 97%. The ergonomic design of our prototype allows users to avoid contamination and the smart detachment design can facilitate weighing of different solid materials

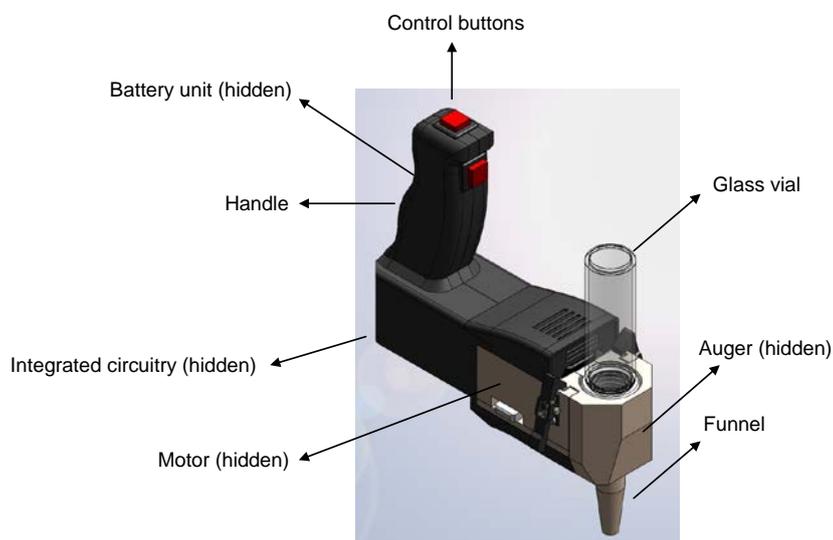


Fig 1: Handheld solid dispenser prototype.

## Key Features

- Portable
- Accurate solid dispensing
- Prevent contamination

## Potential Application

- Industries ranges from biotechnology, chemical, confectionary, food and defense

## Patent

- 1 Patent pending with patent application no: 61/386,672 in US(provisional)

## Contact Us

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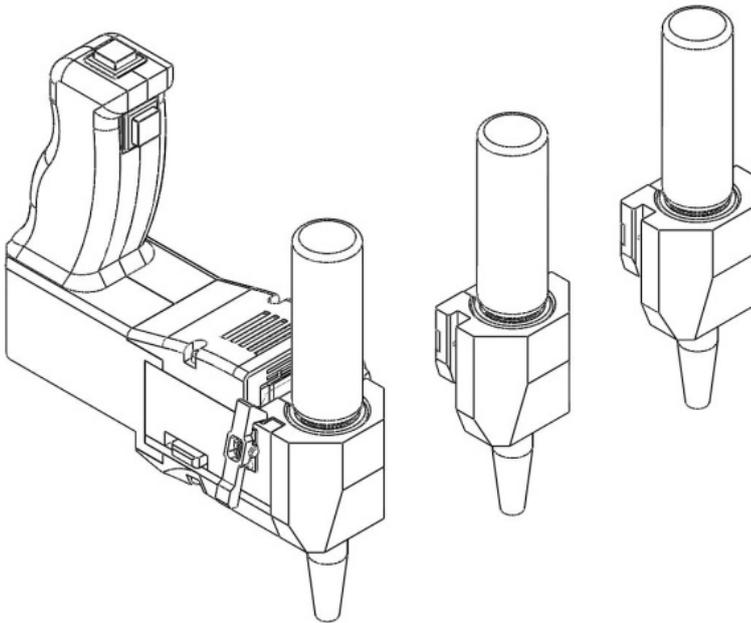
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## Disclaimer

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### **Competitive Advantage**

- Motor driven
- Handheld and portability
- Detachable auger-funnel housing that prevents contamination (Fig 2)



*Fig 2:  
Interchangeable Module 3s*

### **Commercialisation Opportunities**

- Technology is ready to be commercialized in the market.
- Technology is available for licensing from Singapore Polytechnic.
- Interested companies are invited to submit their plans to Singapore Polytechnic Technology Development Centre (TDC) for exploitation of the technology locally.

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