

## **Leak Detector**

### **Executive Summary**

**Entrepreneur:** Sofia Zaidman, Ph.D.

**Project Subject:** Leak Detector Based On Relative Humidity Air Monitoring

**Project status:** Pre-seed

**Industry:** Leakage testing

**Business Description:** Leakage testing has always been a serious problem in a wide range of industries where containers are used, and it is especially urgent with today's concern for resource conservation and public safety. Leak testing can be a very time consuming and frustrating experience. Each method has its advantages and disadvantages. The inventor of the proposed method offers a new approach to the leak testing problem, enabling new comprehensive device that is environmentally friendly, without use of expensive gases.

**Product Description:** The proposed method enables to eliminate lost resources and the expense of reworking. It allows finding potential leaks and sources of energy waste in containers that are too large to make repressurizing practical such as automobile and aircraft interiors, ship compartments, fuel tanks, pipelines or any hollow tank or vessel for checking joints and seals. The method and device are patentable. The advantages of the proposed built-in model of leak detector are as follows: monitoring of relative humidity air, small dimensions, high sensitivity, and sensor of generator type.

**Target Markets:** The market potential of this product is immense. Due to its environmentally friendly characteristics it can be used in the testing procedures of the staple commodities like: food and beverage industry, pharmaceutical industry, toys and sports game production. The proposed leak detector can be used on space simulation chambers, and in various locations of spacecraft's facility. It can make a substantial effect on satellite communications. It can be also ideal for testing valves, fibers, transmissions, compressors, catheters, bottles, tubing and other sealed products.

**Sales Forecast:** The proposed leak detector has the advantage of lower production cost. Existing sophisticated leak detectors, as a rule, consume expensive raw material like helium or argon freon or nitrogen or other noble gases. The regular residue air serves like working gas and the wet air can be used as a test gas. The price of a helium detector is approximated to  $\approx 10,000$  US\$. The price of the proposed leak detector is determined to be  $\approx 1,000$  US\$; mini  $\approx 20-30$  US\$, built-in 1 US\$.

**Requirements:** Investment