



## SMART LOCALISED DRYING ASISTANT (SLDA)

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## **1. EXECUTIVE SUMMARY**

Smart Localized Drying Assistant (SLDA) is a smart drying rack that is mounted on the ceiling and created to solve indoor laundry problems among urban residents, particularly those residing in high-rise apartment complexes. Nurtify Ventures developed SLDA, which employs smart technologies such as AI automation, temperature and humidity sensors, UV-C sterilization, solar energy, and two-language voice assistants to provide a hygienic, space-saving, and effective way to dry clothes. The product is unique among local and foreign competitors as it comes with the solution of common market deficiencies like energy dependency, limited localization, and competitive prices.

Target market segments include urban residents, professional workers, aged people, and green-conscious users, particularly in areas like Kuala Lumpur, Selangor, Johor Bahru, and Penang. All of these segments face shared pain points of limited outdoor drying space, unstable climatic conditions, and the need for convenient and eco-friendly appliances. Survey results showed 96.7% satisfaction with SLDA's drying performance and 100% satisfaction with its bilingual control panel, which indicates high market demand and product usability.

SLDA's competitive advantage comes in the form of its solar-electric hybrid power source, AI-based drying system, and Bahasa Malaysia-supporting bilingual app when the features that are currently not available from other brands like Xiaomi or Foxydry. The device also comes at a competitive price of RM600, which is within the reach of the mid-range market, while still having high-end features. Financial projections show stellar profitability, with estimated net profits of RM832,434 in 2025, RM1.08 million in 2026, and RM1.44 million in 2027, based on presumed sales expansion and a 30% profit margin.

The firm is led by a seasoned management team of competent individuals in technology, finance, operations, marketing, and leadership. The core roles are Chief Executive Officer (CEO), Chief Operating Officer (COO), Chief Financial Officer (CFO), Chief Technology Officer (CTO), and Chief Marketing Officer (CMO), where defined roles and relevant experience are well established. Outsiders hired as professionals assist the company with legal consultancy, branding, and accounting services to be operationally ready and compliant.

In short, SLDA offers a timely and sustainable solution for the growing smart home appliance market in Southeast Asia and Malaysia. With its innovative features, high demand in the market, and solid financial foundation, SLDA has tremendous potential for scalable growth, future diversification of products, and long-term sustainability in the smart living sector.

## **2. PRODUCT OR SERVICE DESCRIPTION**

### **2.1. *Details of the product produced.***

The Smart Localized Drying Assistant (SLDA) is an innovative drying rack designed for the modern era of technology. The SLDA is specifically created for drying clothes in enclosed spaces by integrating smart technology, which makes it easier, more efficient, and cleaner. Urban residents living in apartments or flats are the primary target users of this product. This is due to the insufficient space and lack of sunlight for drying clothes; the SLDA features a space-saving system combined with automation, solar energy, and sensors. In addition to that, this product is designed to be installed on the ceiling, allowing it to be lowered and raised through three means: using a button, voice commands, and a mobile app control. The SLDA is equipped with advanced components such as temperature and humidity sensors, UV-C sterilization lights for germ-free drying, solar panels for energy efficiency, and a mobile application that supports two languages, namely English and Malay. This system is also integrated with Google Assistant for seamless smart home integration.

### **2.2 *The application of the product and end use***

The primary use of SLDA is to assist users who have limited outdoor space and need to dry clothes without relying on unpredictable weather conditions. It is also beneficial for elderly users, busy professionals, and individuals who prioritize cleanliness and savings on electricity bills. This product is equipped with an enhanced drying process driven by AI automation, which is adjusted based on the fabric type and moisture level to ensure clothes are dried efficiently while saving electricity. Additionally, the SLDA application connected to the product assists users in knowing the status of clothes in the dryer, whether they are dry or still damp. It will also provide notifications through the application to inform users when the clothes are done drying or with sounds from the voice assistant provided such as 'Drying Completed'.

### **2.3. *Unique features of the product and market differentiation***

The uniqueness of this SLDA lies in its design, which integrates local features that are not found in other smart drying products. Most smart dryers can only be installed on walls and cannot be mounted on ceilings. Even when they can be mounted on ceilings, local drying racks still lack smart technology features such as voice assistants. Most only utilize buttons or applications. Additionally, unlike international drying racks which are either too basic or expensive, SLDA offers smart automation at an affordable price. Although it has features that are somewhat like international

products, SLDA distinguishes itself from those products through its incorporation of a bilingual application, specifically voice control in the Malay language. This is because most international products largely use Bahasa Indonesia, which is considered Bahasa Malaysia. These products also have features that are suitable for the Malaysian climate, thus adding significant value and enhancing consumer usage. The innovations are designed not only for technological appeal but are also innovated to solve household problems, such as limited clothes drying space and reduced sunlight exposure, more effectively. Although the differences are not very pronounced, due to this market distinction, SLDA possesses competitive advantages and strong potential to penetrate both domestic and international markets.

#### ***2.4. Development of the product***

The Smart Localized Drying Assistant (SLDA) is at the prototype development stage where a functioning model has been built and completed testing. The main smart features present in this prototype include humidity and temperature sensors, a microcontroller-based AI system, UV-C sterilization, and the integration of solar panels. This product is also made from lightweight aluminum, allowing it to be folded upwards and easily mounted on ceilings. It has been designed for users with limited space for drying clothes. The SLDA is equipped with a motorized lift, smart touch panels, and a bilingual mobile application that can be controlled via phone or voice. Meanwhile, by using basic AI functions and voice command systems, the prototype has successfully been tested, as evidenced by successful responses to commands such as "SLDA UP," "SLDA DOWN," and "DRYING COMPLETED" once the drying process is finished. Based on feedback collected from a survey of 30 users, 96% expressed satisfaction with the drying performance, and 100% agreed with the bilingual interface. To replace sunlight, LED lights are used in conjunction with flexible internal solar panels. Furthermore, the estimated budget to prepare the product for the market is between RM 15,000 to RM 20,000. The time required to complete the product fully, including refining the system and conducting extensive testing, is estimated to take between 3 to 6 months to finalize.

#### ***2.5. Patents or other proprietary features of the product***

Currently, the SLDA is not patented as a government patent or intellectual property law. However, the development team has identified several proprietary components with patentability and brand differentiation potential. Amongst the most notable innovative features is the AI-driven automation system that uses sensor data like humidity, temperature, and weather forecasts to drive the drying smartly. One of the unique features is the inclusion of UV-C sterilization that automatically