



TECHNOLOGY BLUEPRINT – FOOD WASTE GRINDER BIN

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1.0 EXECUTIVE SUMMARY

The Food Waste Grinder Bin is an innovative, eco-friendly kitchen appliance to simplify the management of food waste. It integrates grinding, deodorizing, and partial composting features into a compact, eco-friendly bin, offering a modern solution to household waste while promoting sustainability. We are targeting young adults and environmentally conscious consumers. We also target consumers who live in urban apartments or compact homes. In the first three years sales of 2,400 to 7,500 units with cumulative revenue reaching RM 4.3 million.

Unlike traditional bins or expensive food waste disposers, this offers an all-in-one, safe, and space-saving solution tailored for modern living. Its unique features include smart motion sensors, an odor control, and composting capability at a more affordable price. With an estimated start-up cost of RM 35,297.00 and minimal monthly operating costs. With our projected revenue and consistent demand for the environmentally aware consumer, we expect the business to become profitability within the first 2 years of operation.

The team consists of six members. All six members have complementary skills in engineering, product design, finance, marketing, and operations. Having both prototyping and product development expertise, and a need understanding of our target market's needs, we are well positioned to execute this business opportunity and bring the Food Waste Grinder Bin to market successfully. Each of the team members holds a defined management role from CEO to Product & Technology Lead, allowing for clear responsibility and accountability across all functions.

2.0 PRODUCT OR SERVICE DESCRIPTION

2.1 Details of The Product

The main focus of our product is home and kitchen sustainability. The Food Waste Grinder Bin is designed to stand out in the market by offering a smart, eco-friendly, and cleaner solution to kitchen waste. Many people living in cities or apartments struggle with limited space and smelly bins, so this product was created as a practical solution. Unlike normal trash bins, this one has a built-in grinder to break down food scraps into smaller particles, a deodorizer to reduce the bad smells, and a fertilizer chamber to support partial composting. It helps reduce waste while also supporting a more sustainable lifestyle. The design is compact but powerful, making it suitable for everyday use. It also comes with a few modern colors to suit any kitchen style. Overall, it is a practical and stylish solution for cleaner, greener living.

Table 2.1

Details of the product

General Features	Details
Product Name	THE FOOD WASTE GRINDER BIN
Dimension	• Compact • Space-saving design
Colour	• Matte Grey • White • Olive Green • Black
Weight	Approx. 6–8kg
Features	• Built-in stainless-steel grinder • Motion-sensor lid with safety auto-stop • Deodorizer chamber (uses charcoal or natural enzymes) • Fertilizer chamber for partial composting • LED status indicator ( in progress,  not in progress) • Water outlet with optional hose • Quiet operation & child-safety lid lock • Front power button
Material	Stainless Steel interior & ABS Plastic exterior