

# EN2160 ELECTRONIC DEVICE REALIZATION

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Device name : Smart digital kitchen scale

Device Description : A smart digital kitchen scale is a state-of-art device that allows users to accurately measure the weight of ingredients while also providing nutritional information. By connecting the scale to a mobile app, users can access a range of features, including the ability to count calories and track their food intake. The app might also provide recipes and meal planning advice, helping users make healthier choices and achieve their dietary goals. With its precision weighing and advanced functionality, a smart digital kitchen scale is the perfect tool for anyone who is serious about cooking and wants to take control of their diet.

Specifications :

Capacity: 1 gram to 5 kilograms

Accuracy: maximum error 1g, error percentage <1% for measurements higher than 100g

Display (resolution): 0.91 inch 128 x 24 OLED display with SSD1306 driver

Units of measurement: grams and ounces

Tare function: The ability to reset the scale to zero, which is useful for weighing multiple ingredients in the same container.

Calibration function: The ability to calibrate the scale to ensure accurate measurements. This might involve adjusting the scale's internal settings or using calibration weights.

Power source: Li-polymer battery 3.7V ( with recharging functionality)

Materials and design: wood enclosure (with proper painting for increased durability)

Cost: The overall cost of the scale, which will depend on the specifications and features included.

Extra features : connect scale with a mobile app to record measurements(basic functionality). This feature was added to implement a mobile app which can count calories and track diet.

Planned mobile app has following functionality, it is a comprehensive tool for tracking your diet and monitoring your weight. It connects seamlessly with a smart digital scale, allowing you to easily record measurements and keep track of your progress. The app also offers a range of features, including a food diary, meal planner, and calorie counter, making it easier than ever to achieve your health and fitness goals.