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Micro Drone with Proximity Sensor

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Abstract: *The Lidar Micro Drone is an innovative unmanned aerial vehicle equipped with advanced sensors for proximity sensing and environmental data collection. This drone incorporates a VL53L0X sensor for precise distance measurements, enabling it to navigate and avoid obstacles with exceptional accuracy. Additionally, it integrates a DHT11 sensor to monitor temperature and humidity levels, providing valuable insights into the surrounding conditions.*

The inclusion of a BMP180 sensor enhances its capabilities by measuring atmospheric pressure, further enriching the data collected during flight. All these sensors are seamlessly connected to a Node MCU for data processing and transmission.

The drone communicates its sensor data in real-time to a mobile application developed using Kodular, ensuring that users can access critical information effortlessly. Whether for applications in environmental monitoring, safety, or surveillance, the Lidar Micro Drone offers a versatile and powerful solution for proximity sensing and data collection, bridging the gap between advanced technology and user-friendly mobile interfaces.

Drones are now widely used in a variety of industries in the present era of fast- moving technology. Drones are used for anything from photography and cinematography to thermal examinations. The expense of drones is the most significant concern. Drones are often expensive to buy, and there is a significant risk of harm while flying them, which is why they are still a very uncommon item. Large drones can produce a lot of noise and require a lot of open space to fly. They can't fly indoors, in dense forests, or in locations with a lot of trees. The little drone is made up of four propeller-driven drone motors, an Arduino Pro Mini F3 EVO controller, a lidar sensor, and a buzzer. Infrared is used by the LiDAR sensor..

Keywords: Arduino, EVO controller

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