Exercise 1

Exercise: Designing a Drone for a Specific Application

Objective: To apply your knowledge of drone technology by designing a drone for a specific application, considering its size, shape, design, and fundamental principles of operation.

1. Choose an application for your drone, such as:
    - Aerial photography
    - Search and rescue
    - Environmental monitoring
    - Package delivery
    - Agricultural surveillance
2. Research the requirements for your chosen application, considering factors like:
    - Range and endurance
    - Sensor or payload requirements
    - Obstacle avoidance and navigation
    - Weather resistance
3. Design your drone, taking into account:
    - Size and shape

- Materials and construction
- Propulsion and control systems
- Sensor and payload configuration
- Safety features

4. Write a brief report (250-500 words) explaining your design decisions, including:

- How your drone meets the requirements of your chosen application
- The fundamental principles and technologies involved in its operation
- The necessary knowledge and skills required to safely operate and handle your drone

5. Include diagrams or illustrations of your drone design, highlighting its key features and components.

Deliverables:

- A written report detailing your drone design and its application
- Diagrams or illustrations of your drone design