```
drone_modules = {
    # Navigation & Flight Control
    "fly_to": "Fly to the specified GPS coordinates.",
    "hover": "Maintain current altitude and position.",
    "adjust_altitude": "Change altitude to a specified value.",
    "circle_target": "Fly in a circular pattern around the target.",
    "return_to_base": "Return to the designated base station.",
    "land": "Initiate landing procedure at the current or specified location.",
    "takeoff": "Initiate takeoff sequence from the ground.",
    "follow_path": "Follow a pre-defined path or set of waypoints.",

    # Environmental Awareness
    "scan_area": "Perform a visual or LIDAR scan of the surrounding environment.",
    "avoid_obstacle": "Engage obstacle avoidance to bypass detected hazards.",
    "geo_fence_check": "Check current position against geofenced boundaries.",
    "detect_weather": "Collect weather condition data (wind, temperature, etc.).",

    # Perception & Vision
    "activate_camera": "Turn on onboard camera system.",
    "capture_image": "Capture a high-resolution image of the current view.",
    "stream_video": "Stream real-time video feed to the control center.",
    "detect_animal": "Detect animals in camera feed using onboard ML model.",
    "detect_zebra": "Identify zebra presence using specialized vision model.",
    "track_target": "Track a moving object using vision and motion estimation.",
    "thermal_scan": "Perform thermal imaging of surroundings.",
```

Data Collection

"collect_data": "Gather and store sensory or analytical data.",

"log_gps": "Log current GPS position and timestamp.",

"record_audio": "Record environmental audio via onboard microphone.",

"sample_air_quality": "Analyze and store air quality data.",

"upload_data": "Upload collected data to external storage or server.",

"compress_data": "Compress data before transmission.",

Communications

"send_alert": "Send emergency alert to operators with status.",

"ping_base": "Send status ping to base station.",

"establish_secure_channel": "Initiate encrypted comms with control center.",

Mission Control

"execute_patrol": "Execute pre-defined patrol route.",

"abort_mission": "Abort current mission and return to safe state.",

"switch_mode": "Switch drone between manual, semi-auto, or autonomous modes.",

"evaluate_threat": "Evaluate threat level based on vision and environmental data.",

"mark_location": "Mark the current location for further inspection.",

System Management

"run_diagnostics": "Perform internal diagnostics on sensors and subsystems.",

"check_battery": "Report current battery level.",

"reboot_system": "Soft reboot of flight controller or specific module.",

"update_firmware": "Apply firmware update from local or remote source.",

```
    # Emergency Protocols
    "initiate_emergency_landing": "Land drone immediately in a safe manner.",
    "engage_failsafe_mode": "Switch to minimal safe operations due to system fault.",
    "drop_payload": "Drop carried payload in emergency scenarios.",
}


 object_list = [
    # Animals (based on onboard vision model)
    "zebra",
    "lion",
    "elephant",
    "giraffe",
    "wildebeest",
    "rhino",
    "buffalo",

    # Terrains & Landmarks
    "watering hole",
    "savanna",
    "swamp",
    "hill",
    "tree cluster",
    "grassland",
    "riverbank",
    "rocky outcrop",
```

```
    # Human-related
    "ranger station",
    "vehicle",
    "poacher camp",
    "fence",
    "drone base",

    # Environmental features
    "fire hotspot",
    "animal tracks",
    "nesting site",
    "shade area",
    "muddy terrain",
    "vegetation patch",

    # Equipment or artificial markers
    "camera trap",
    "sensor post",
    "GPS collar signal",
]
```