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| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | | | | **CIVIL AVIATION AUTHORITY OF MALAYSIA**  **Application for Special UAS Project Technical Characteristics of the UAS** | | | | | | | | | | | | | | | | | | | | |
| **LANDING GEAR** | | | | | | | | | | | | | | | | Yes | | | | | | No | | |
| Type | | | | | | Fixed | | | | | | Retractable | | | | | | | Other | | | | | |
| Characteristics | | | | | | Wheels | | | | | Skids | | | | | Legs | | | | | | Other | | |
| **CONSPICUITY CHARACTERISTICS** | | | | | | | | | | | | | | | | | | | | | | | | |
| Paint 1 | | | | | |  | | | | | | | | | | | | | | | | | | |
| Lights 2 | | | Yes | | | | | No | | | | | Intensity | | | | | | |  | | | | |
| Aircraft Visibility Lights: | | | | | | | | | | | | | | | | | | | | | | | | |
| Control lights (flight mode or alert indicators, etc.): | | | | | | | | | | | | | | | | | | | | | | | | |
| **PROPULSION 3** | | | | | | | | | | | | | | | | | | | | | | | | |
| Electrical |  | | | | Combustion | |  | | | | Hybrid | | | |  | | | Other | | | | | |  |
| Description: | | | | | | | | | | | | | | | | | | | | | | | | |
| Note: Provide a brief description (for example, push/pull systems, coaxial systems in the case of multirotor, combined systems, etc.) | | | | | | | | | | | | | | | | | | | | | | | | |
| **SYSTEMS** | | | | | | | | | | | | | | | | | | | | | | | | |
| Propellors | |  | | | | Turbines | | | |  | | | | | | Other | | | | |  | | | |
| Description: | | | | | | | | | | | | | | | | | | | | | | | | |
| **CONTROL AND/ OR POSITIONING SYSTEM 4** | | | | | | | | | | | | | | | | | | | | | | | | |
| **FLIGHT CONTROLLER 5** | | | | | | | | | | | | | | | | | | | | | | | | |
| Manufacturer | | | |  | | | | | Model | | | | | | | |  | | | | | | | |
| Description: | | | | | | | | | | | | | | | | | | | | | | | | |
| **FLIGHT TERMINATION SYSTEM 6** | | | | | | | | | | | | | | | | | | | | | | | | |
| Description: | | | | | | | | | | | | | | | | | | | | | | | | |
| **FLIGHT MODES 7** | | | | | | | | | | | | | | | | | | | | | | | | |
| Description: | | | | | | | | | | | | | | | | | | | | | | | | |
| **GROUND CONTROL STATION 8** | | | | | | | | | | | | | | | | | | | | | | | | |
| * Radio emitter | | | |  | | | | | | | | | | | | | | | | | | | | |
| Manufacturer | | | |  | | | | | Model | | | | | | | |  | | | | | | | |
| * Mobile/Computer application | | | |  | | | | | | | | | | | | | | | | | | | | |
| Manufacturer | | | |  | | | | | Model | | | | | | | |  | | | | | | | |
| * Other | | | |  | | | | | | | | | | | | | | | | | | | | |
| Manufacturer | | | |  | | | | | Model | | | | | | | |  | | | | | | | |
| **CONTROL COMMUNCATION LINK** | | | | | | | | | | | | | | | | | | | | | | | | |
| Description (frequency): | | | | | | | | | | | | | | | | | | | | | | | | |
| **TELEMETRY COMMUNICATION LINK** | | | | | | | | | yes | | | | |  | | | no | | | | | |  | |
| Description (frequency): | | | | | | | | | | | | | | | | | | | | | | | | |
| **VIDEO SYSTEM COMMUNICATION LINK (FPV)** | | | | | | | | | yes | | | | |  | | | no | | | | | |  | |
| Description (frequency): | | | | | | | | | | | | | | | | | | | | | | | | |
| **PAYLOAD COMMUNICATION LINK** | | | | | | | | | yes | | | | |  | | | no | | | | | |  | |
| Description (frequency): | | | | | | | | | | | | | | | | | | | | | | | | |
| **PAYLOAD 9** | | | | | | | | | yes | | | | |  | | | no | | | | | |  | |
| **TYPE** | | | | | | | | | fixed | | | | |  | | | intercha-ngeable | | | | | |  | |
| Description: | | | | | | | | | | | | | | | | | | | | | | | | |
| **OPERATION LIMITS 10** | | | | | | | | | | | | | | | | | | | | | | | | |
| Maximum operating height | | | |  | | | | | | | | | | | | | | | | | | | | |
| Maximum airspeed | | | |  | | | | | | | | | | | | | | | | | | | | |
| Weather conditions | | | |  | | | | | | | | | | | | | | | | | | | | |
| **SAFETY SYSTEMS/SAFETY NETS AND AWARENESS 11** | | | | | | | | | | | | | | | | | | | | | | | | |
| Detect and Avoid | | | | | | | | | yes | | | | |  | | | no | | | | | |  | |
| Description: | | | | | | | | | | | | | | | | | | | | | | | | |
| Geo-fencing or Geo-caging | | | | | | | | | yes | | | | |  | | | no | | | | | |  | |
| Description: | | | | | | | | | | | | | | | | | | | | | | | | |
| Transponder | | | | | | | | | yes | | | | |  | | | no | | | | | |  | |
| Description: | | | | | | | | | | | | | | | | | | | | | | | | |
| Systems for Limiting Impact Energy | | | | | | | | | yes | | | | |  | | | no | | | | | |  | |
| Description: | | | | | | | | | | | | | | | | | | | | | | | | |
| Other: | | | |  | | | | | | | | | | | | | | | | | | | | |
| Description: | | | | | | | | | | | | | | | | | | | | | | | | |

Note to Applicant:

|  |  |
| --- | --- |
| **(1)** | **Paint**  Describe any painted elements that are visible (marks) and significant (colour, shape, etc.) |
| **(2)** | **Lights**  Describe the lights, including their colours and locations. |
| **(3)** | **Propulsion**  Mark the type of propulsion used, indicating (in the space provided) the manufacturer and model, and detailing relevant information such as the number of motors/engines, the configuration, etc. Powerplant design diagrams may be attached if necessary. |
| **(4)** | **Control and/or Positioning System**  As a general instruction for this section, in addition to the description and information deemed necessary to define these systems, the operator shall provide any certification and rating for the systems. Such as those related to electromagnetic compatibility or SIRIM Type Approval / Special Approval satisfied by the equipment installed on the aircraft for consideration during the specific risk assessment conducted using the specific operations risk assessment (SORA) or any other SMS methodology to evaluate and authorise operations. |
| **(5)** | **Flight Controller**  Indicate the manufacturer and model of the flight controller. Describe the relevant aspects affecting flight safety. |
| **(6)** | **Flight Termination System**  Describe and include the technical characteristics of the system, its modes of operation, system activation and any certification and rating for the components, as well as proof of its electromagnetic compatibility for consideration during the SORA or any other SMS methodology that is followed to evaluate and authorise operations. |
| **(7)** | **Flight Modes**  Describe the flight modes (i.e., manual, artificial stability with controller, automatic, autonomous). For each flight mode, describe the variable that controls the aircraft: increments in position, speed control, attitude control, type of altitude control (which sensor is used for this purpose), etc. |
| **(8)** | **Ground Control Station**  For ‘encrypted’ links, describe the encryption system used, if any. |
| **(9)** | **Payload**  Describe each of the different payload configurations that affect the mission or that, without changing it, impact the weight and balance, the electrical charge or the flight dynamics. Include all relevant technical details. If needed, you may use other documents that provide the specified details. |
| **(10)** | **Operation Limits**  Describe in this section the maximum operating height, the maximum airspeed (including Vmax ascent, Vmax descent and Vmax horizontal), and, in addition, the meteorological limit conditions in which the UAS can operate (e.g., rain, maximum wind, etc.) |
| **(11)** | **Safety Systems/Safety Nets and Awareness**  Describe the systems or equipment installed on the aircraft to mitigate potential safety risks, whether included in the form or not. |