

Pos Malaysia Berhad's Parcel Drone Competition ("Competition")

The following terms and conditions together with any instruction and specific rules as directed from time to time by Pos Malaysia Berhad ("**Pos Malaysia**") shall form the terms and conditions ("**Terms and Conditions**") of this Competition. By entering into this Competition, participants have read, understood and agreed to be bound by the Terms and Conditions and accepts that the decision of Pos Malaysia regarding this Competition and all matters related to or connected with it, including, without limitation determination and selection of the winner, awarding of any prizes and the interpretation of the Terms and Conditions, is final and binding on participants.

Pos Malaysia shall at its own discretion from time to time reserves the right to amend or vary the Terms and Conditions or to cancel or terminate this Competition for whatsoever reason without any prior notice to the participants.

1. **This Competition**

- 1.1 This Competition is organized by Pos Malaysia in collaboration with the Malaysian Communications and Multimedia Commission ("**MCMC**").
- 1.2 Pos Malaysia invites participants who meet the criteria as set out in Paragraph 2.1 below to enter into this Competition by submitting their original and innovative invention or creation of autonomous drones that which are able to deliver parcel ("**Parcel Drone**").
- 1.3 This Competition starts on 10 January 2019 and ends on 7 March 2019 ("**Competition Period**").
- 1.4 Registration for this Competition starts from 10 January 2019 and closes on 17 January 2019 ("**Registration Period**"). All entries received beyond the Registration Period are disqualified and will not be entertained.
- 1.5 All shortlisted participants ("**Shortlisted Participants**") will be receiving invite from Pos Malaysia via e-mail and/or website by 20 February 2019 to conduct a trial run session with their Parcel Drone on 6 March 2019 ("**Pre-Competition Day**") at a venue as determined by Pos Malaysia. On the Pre-Competition Day, three (3) participants ("**Finalist**") will be selected to compete on 7 March 2019 ("**Competition Day**") for the title of Grand Prize Winner.
- 1.6 Pos Malaysia reserves its rights to exercise its absolute discretion to vary or amend the dates as set out in the Terms and Conditions without prior notice to the participants and the participants shall comply with the same.
- 1.7 The Shortlisted Participants will be entitled to prize money as described in Paragraph 4 below in accordance with the Terms and Conditions.

2. **Eligibility of Participant**

- 2.1 This Competition is open to:-

- (a) A group comprising of minimum four (4) individuals of Malaysian citizen with valid MyKad or a company incorporated in Malaysia; or
- (b) Possess the full knowledge and skills to operate drones and conversant with the rules and regulations in the Malaysian aviation industry.

Pos Malaysia Group of Companies, 2Cool Productions Sdn. Bhd. and MCMC including its shareholders or related corporation or their respective employees and family members are not qualified to participate in this Competition.

2.2 During the Registration Period, participants must complete the online competition registration form available from drone.pos.com.my and submit the following documents :-

- (a) A copy of the participant's MyKad or Malaysian passport (for individuals);
- (b) Company profile (for businesses);
- (c) Copy of Business Registration SSM (Form 9) (for businesses); and
- (d) Copy of Shareholding Status (Form 24/49) (for businesses).

2.3 During the period commencing from 18 January 2019 until 13 February 2019, the registered participants are required to submit the following additional documents at drone.pos.com.my:-

- (a) A proposal or "Proof of Concept" which includes the proposed Parcel Drone design and specifications; estimated cost of system and development, experience and track record of the participant in terms of similar systems built, and/or relevant tests/projects conducted in the past; and
- (b) Video, still images and supporting documentation to prove that the Parcel Drone system is in working and capable condition.

2.4 Pos Malaysia reserves its rights to exercise absolute discretion at any time during the Competition Period to reject or refuse or exclude any participant or entries in this Competition without assigning any reason whatsoever.

2.5 All selections and/or decisions made by Pos Malaysia or its appointed representative in relation to this Competition (including, without limitation, the determination and the selection of the Shortlisted Participants, Finalist and winners) will be final and conclusive. No enquiries or complaints will be entertained.

3. Technical Requirements of the Parcel Drone

3.1 Participants must build an autonomous battery powered multirotor drone which is able to safely carry a maximum payload of 2kg over a distance of approximately 2 km. The design and specifications of the Parcel Drone must take into account the following:

- (a) AIRFRAME

- (i) The multirotor drone frame must be a minimum size of 800mm diameter measured motor to motor, usable for medium to heavy lift applications. There is no limit on the maximum size, but competitors must take into consideration that maximum take-off weight of aircraft including package must not exceed 20 kg;
 - (ii) Custom built and designed airframes and also readily available manufactured branded airframes are allowed (airframes only);
 - (iii) Airframe must be configured for a minimum of 6 rotors (hexacopter). There is no limit on maximum number of rotors. X8, X12 or X16 configuration is allowed; and
 - (iv) Main frame construction must be of either aluminum, carbon fibre and/or carbon composite materials.
- (b) MOTORS AND PROPULSION
- (i) Requirement of a minimum of 6 brushless motors for hexacopter configuration;
 - (ii) Combined motors and propellers on drone must have a thrust to weight ratio of 2 to 1 or twice as much thrust as the weight of the drone fully loaded including all batteries and parcel (50% throttle on hover);
 - (iii) Electronic Speed Controllers (ESC) must be properly rated for the maximum amps and current draw of motors; and
 - (iv) Carbon, nylon and wooden propellers are allowed.
- (c) MAIN POWER SYSTEMS
- (i) Lithium Polymer Batteries;
 - (ii) Minimum 4S (14.8v) – Maximum 12S (44.4v); and
 - (iii) Dual or multiple battery setup - can be configured in either parallel or series configuration.
- (d) FLIGHT CONTROL SYSTEMS (Hardware & Software)
- (i) Pixhawk or Ardupilot (APM) Flight Controller System;
 - (ii) Flight control systems must be equipped with GPS, two-way telemetry system with in-flight command using the Mavlink protocol;
 - (iii) Additional vision and optical sensors to assist drone in navigation is allowed;
 - (iv) Ground Control Station “Hardware” – Laptop or Tablet (Windows, Mac OS);

- (v) Ground Control Station “Software” – Open Source system such as Mission Planner (MP) or QGroundcontrol (QGC);
 - (vi) 433 MHz Transceiver Telemetry Radio system for Ground Control Station telemetry control; and
 - (vii) 2.4 GHz Radio System transmitter and receiver for manual control.
- (e) CAMERA AND VIDEO SYSTEMS
- (i) The drone must be equipped with dual fpv cameras with minimum resolution of PAL 720 x 576;
 - (ii) Forward facing fpv camera;
 - (iii) Downward facing camera to monitor parcel and landing area;
 - (iv) Remote video switching or dual channel video transmission for fpv cameras;
 - (v) On Screen Display (OSD) of aircraft telemetry - heading, altitude, speed (km/h), distance travelled, distance from home, voltage and satellites acquired;
 - (vi) 5.8 GHz video transmitter (800 mW max power output); and
 - (vii) Ground Station LCD monitor with 5.8 GHz video receiver.
- (f) CARGO AND PARCEL HOLDING SYSTEM
- (i) The Parcel Drone must be equipped with a parcel holding box or cradle system which must be able to securely hold a - Pos Malaysia Box “(S) Size” with dimensions of 170mm x 230mm x 230mm (Height x Length x Width);
 - (ii) The parcel holding system must be permanently and securely fixed to the Parcel Drone and should be able to support up to 2kg pay load;
 - (iii) The parcel holding system design must be of a quick access or quick release system where the “parcel” can be easily and/or quickly removed from it by hand without the use of any tools; and
 - (iv) Automatic and remote parcel release feature is allowed.

4. Shortlisted Participants, Finalists, Grand Prize Winner, Prizes and Prize Giving Ceremony

- 4.1 On the Pre-Competition Day, four (4) participants will be announced as the consolation prizes winners. The Finalist will be required to compete on the Competition Day to determine the Grand Prize Winner.
- 4.2 The Grand Prize Winner will be selected and announced based on the highest score determined by Pos Malaysia judging committee on the Competition Day.

4.3 The prize giving ceremony will be held on the same day as the Competition Day and therefore, the consolation prizes winners will need to attend the Competition Day to receive their prizes.

4.4 The prizes are as per the following:

- (a) Grand Prize Winner – RM25,000;
- (b) 2nd place winner – RM15,000;
- (c) 3rd place winner – RM7,000; and
- (d) 4th to 7th place winner – RM1,000 consolation prizes each

4.5 Notwithstanding the above, Pos Malaysia has the right to substitute or change or vary the prizes with any other products of similar value. All prizes are non-transferable, non-refundable and non-exchangeable for any other prizes.

5. Intellectual Property Rights

5.1 Pos Malaysia and the Grand Prize Winner shall jointly own the Intellectual Property Rights of the Parcel Drone including the customization, design, algorithm and system.

5.2 The Grand Prize Winner shall not in any way develop or transfer or sell or commercialize the Parcel Drone without prior written approval by Pos Malaysia for a period of twelve (12) months from the date of the Competition Day.

6. Competition Day Rules and Regulations

6.1 On the Competition Day, the Shortlisted Participants shall comply with the following rules and regulations: -

- (a) Each participant must bring a team of at least 4 people who will take on the following roles:
 - (i) Remote Pilot in command (RPIC);
 - (ii) Co-Pilot/GCS Operator;
 - (iii) Visual Observer (VO)/ground crew; and
 - (iv) Technician.
- (b) Parcel Drone must be programmed on site with autonomous flight mission to:
 - (i) take off with parcel and hover at an altitude of 20 meters above ground level (AGL) at launch point “A” (“**Point A**”);
 - (ii) proceed 1km forward flight to 1st waypoint “B” (“**Point B**”) while climbing to maximum altitude of 50 meters (AGL);

- (iii) make a turn and fly for a distance of 50 meters to a 2nd waypoint “C” (“**Point C**”);
- (iv) return to Point A and hover at altitude of 20 meters (AGL);
- (v) safely land at home Point A; and
- (vi) deploy parcel carefully from the Parcel Drone.

*Total distance of flight mission including waypoints will be approximately 2.05 km.

- 6.2 The Shortlisted Participants will be given period of twenty (20) minutes to complete their flight mission. A maximum of two (2) attempts will be allowed for each Shortlisted Participants to complete the flight mission within the twenty (20) minute time allocation. Points scoring will be taken from the best of the two (2) completed attempts. Score will be given based on speed, maneuverability, accuracy and stability of the Parcel Drone in delivering the parcel to and fro the points as described above. Participant with the total highest score from the two (2) completed attempts will be announced as the Grand Prize Winner.
- 6.3 For the avoidance of doubt, the attempt is considered “completed” by successfully completing the sequence of flight from Point A to Point B, Point B to Point C and back to Point A in the correct order. If the Parcel Drone deviates from these points and does not complete each sequence in order, or malfunctions, or not able to sustain safe and controlled flight, or failed to complete the attempt, the said attempt shall be considered “not finished”.
- 6.4 Participants are not allowed to manually control their Parcel Drone or make any changes via their ground control station during the course of the flight mission unless for safety, evasive or abort mission procedures.
- 6.5 The judging committee reserves the right to stop or abort any participant’s flight mission attempt if it is considered dangerous or it is against the guidelines given by Pos Malaysia. Also, the judging committee reserves the right to rule out any attempt’s record if any unfair activity is found (e.g. human intervention during the flight).

7. **Participant’s Representations and Warranties**

Each participant represents and warrants to and undertakes with Pos Malaysia that:

- (a) he/it is eligible to participate in this Competition;
- (b) the design, specifications and operations of the Parcel Drone shall comply with all applicable laws, government regulations, directives, guideline, practice directions, notices and policies in Malaysia;
- (c) the design, specifications and operations of the Parcel Drone does not infringe the Intellectual Property Rights (as defined hereinafter) or any other rights of any third party. For the avoidance of doubt, “**Intellectual Property Rights**” shall mean any

patents, trademarks, rights in designs, get up, trade, business or domain names, copyrights including rights in computer software and databases (including database rights) and topography rights (in each case whether registered or not and, where these rights can be registered, any applications to register or rights to apply for registration of any of them), and where applicable any goodwill therein, rights in inventions, know-how, trade secrets and other confidential information, or any other intellectual property rights which may exist at any time in anywhere;

- (d) at all times whether during the Competition Period or after end of this Competition Period, indemnify and hold harmless Pos Malaysia all cost, claims, damages, losses, expenses, demands, causes of action and proceedings of whatsoever nature arising from or contributed by any act, omission, default or breach or any negligence or breach of statutory duty that arise out of or in connection with the Parcel Drone and where applicable, infringes or violates any patents, trademarks, copyrights or other Intellectual Property Rights of any third party;
- (e) he/it shall be solely responsible for any claims or action made against themselves in the event of any mishap or damages or losses due to the usage of the Parcel Drone during the Competition Period;
- (g) he/it has read, understood and shall abide to the Terms and Conditions; and
- (h) he/it has given and shall give accurate and complete information to Pos Malaysia, including, but not limited to, information required to participate in this Competition.

8. Liability and Indemnity

8.1 Pos Malaysia, its representatives and agents, subsidiaries, affiliates and associated companies/entities (collectively the **"Pos Malaysia Group"**) do not assume any responsibility for:

- (a) the failure of any electronic communications in relation to delivery and/or receipt of applications, notifications and communications whatsoever; and
- (b) any entry, email, mail, letter, registration, submission or phone call that is lost, late, misdirected, intercepted, undelivered, rejected, blocked, deleted or otherwise not received for any reason whatsoever, as the case may be.

8.2 The participants disclaim any rights to claim whatsoever against any member of the Pos Malaysia Group and their respective directors, officers, employees and agents in respect of any action, proceeding, judgment, damage or loss (including, without limitation, incidental, punitive, consequential, special, direct or indirect damages, loss of profits, loss of business, loss of business opportunity or economic loss), expense, injury (including, without limitation, death or personal injury), damage to property or liability suffered or incurred by the Participant or the Winner or any other person arising directly or indirectly from or in connection with such participant's or Winner's participation in this Competition.

8.3 Pos Malaysia accepts no responsibility for any tax implications that may arise from any Prize or any component thereof. Any tax filing obligation or any tax payment due to any authority as a result of the receipt or use of the Prize or any component thereof remains the sole responsibility of the Winner thereof. It is the responsibility of the Winner to seek independent advice on the possible implications this may have on its own financial situation.

9. **Consent to Record**

9.1 The participant agrees and consents to Pos Malaysia and/or the Pos Malaysia Group and its successors, assigns and contractors filming or otherwise recording the Participant's appearance, poses, voice, image and statements, and editing such recordings (collectively "**Footage**") for any purposes as may be determined at the sole discretion of Pos Malaysia. The participant agrees that Pos Malaysia and/or the Pos Malaysia Group and its successors, assigns and contractors may use the Footage or a reproduction of it, in whole or in part, and/or the participant's name, voice, likeness and any biographical material which the participant may provide, in connection with the use of the Footage. The participant further agrees that Pos Malaysia and Pos Malaysia's appointed agency in its sole discretion, may edit, modify, add to, delete from or change the content of the Footage.

9.2 The participant hereby releases Pos Malaysia from any right that the participant may have in connection with the use of the Footage and the participant's name. The participant shall not own any rights in the Footage, and the participant acknowledges that Pos Malaysia shall be the sole owner of it and any proceeds derived from it. The participant represents that any statements made by the participant during the Footage are true, to the best of the participant's knowledge, and that neither they nor the participant's appearance will violate or infringe upon the rights of any third party, nor give rise to any claim.

9.3 The participant hereby releases Pos Malaysia, its contractors and their respective parent companies, subsidiaries, affiliates, licensees, successors and assigns, from any claim of any kind or nature whatsoever arising from the use of the Footage, including, but not limited to, those based upon "moral rights" (which, to the extent such "moral rights" may not be assigned to Pos Malaysia, are expressly waived by the participant), defamation (including libel and slander), invasion of privacy, right of publicity, copyright, or any other personal and/or property rights (collectively "**Claims**") and agree that the participant will not now, or in the future, assert or maintain any Claims against Pos Malaysia, its contractors or their respective parent companies, subsidiaries, affiliates, licensees, successors or assigns. The participant hereby waives any right of inspection or approval of the participant's appearance or the uses to which the Footage may be put. The participant acknowledges that Pos Malaysia will rely on this permission potentially, at substantial cost to Pos Malaysia, and hereby agrees not to assert any claim of any nature whatsoever against anyone relating to the exercise of the permissions granted under the Terms and Conditions.

10. **PDPA Consent and Privacy Policy**

10.1 By submitting your entry, you hereby agree that Pos Malaysia may collect, obtain, store and process your personal data that you provide in relation to this Competition. For the avoidance of doubt, 'personal data' includes all data defined within the Personal Data Protection Act 2010.

10.2 For the detailed Data Protection and Privacy Notice and Policy, kindly visit Pos Malaysia's website at www.pos.com.my. The Data Protection and Privacy Notice and Policy outlines how Pos Malaysia collects, uses, handles and protect the information and personal data given to Pos Malaysia and in compliance with the Personal Data Protection Act 2010.

11. **Publicity**

The winners may be required to participate in publicity programs which Pos Malaysia may from time to time organize in connection with this Competition and the Prize and if so, such Winner must attend such functions.

12. **Force Majeure**

In the event Pos Malaysia is prevented from continuing with this Competition or the integrity and/or feasibility of this Competition is undermined by any event beyond the control of Pos Malaysia, including, but not limited to, fire, flood, epidemic, earthquake, explosion, labor dispute or strike, act of God or public enemy, satellite or equipment failure, riot or civil disturbance, war (declared or undeclared), terrorist threat or activity, or any federal, state or local government law, order, or regulation, order of any court or jurisdiction, government embargoes, infection by computer virus, unauthorized intervention, breakdown in machinery or equipment, technical failures or other cause not reasonably within the control of Pos Malaysia, Pos Malaysia shall have the right, in its sole and absolute discretion, to abbreviate, modify, suspend, cancel or terminate this Competition without any further obligation.

13. **Variation**

The Terms and Conditions may be changed, varied, modified and/or deleted by Pos Malaysia at its sole and absolute discretion at any time and from time to time without any prior notice to the participants.

14. **Governing Law**

The Terms and Conditions are governed by the laws of Malaysia and the parties submit to the exclusive jurisdiction of the Malaysian Courts. In case of any dispute in relation to this Competition, Pos Malaysia's decision shall be final and binding and the participant shall not challenge any decision made by Pos Malaysia.

15. **Severance**

If any of the provisions of the Terms and Conditions becomes or is invalid, illegal or unenforceable in any respect under applicable law, the validity, legality and enforceability of the remaining provisions shall not in any way be affected or impaired and such invalid, illegal or unenforceable provisions shall be deemed severed from these terms and conditions and Pos Malaysia shall be entitled to replace such severed provisions with such other provisions as it may deem fit.

16. **Headings**

The headings to the clauses of the Terms and Conditions shall not be taken into consideration in the interpretation or construction thereof or of the Terms and Conditions.

End