

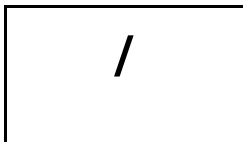


PERTANDINGAN JUNIORSKILLS MALAYSIA (JSM) 2019

Drone Operation Test Project



PRA KELAYAKAN



AKHIR

**JABATAN PEMBANGUNAN KEMAHIRAN
KEMENTERIAN SUMBER MANUSIA**

1. Introduction

1.1 Forms of participation in the competition:

Team - 2 person

1.2 Skill name:

Drone Operating

1.3 Competitor shall possess a range of knowledge and skills in the areas:

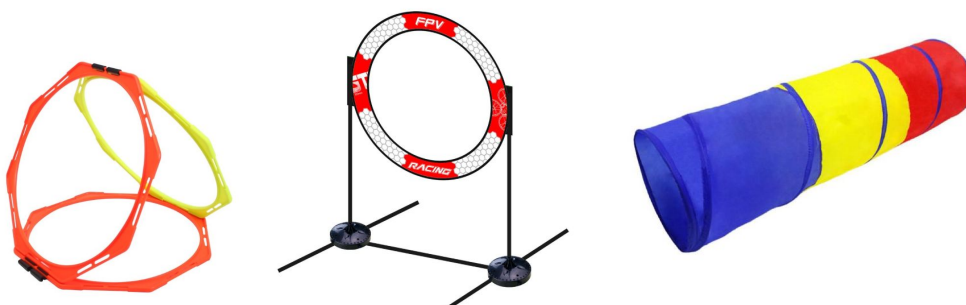
- The technical maintenance of a drone, installation of individual units, assembly, diagnostics, routine repair of the drone;
- Piloting in different conditions; visual or FPV video-receiver piloting;
- Autonomous flight programming.

2. Description of Project & Task

2.1. Test Project Modules, Time and Evaluation Points

Module		Description	Criteria	Timing	Points
A	Piloting in FPV Mode	Demonstrate quadcopter and FPV setup	Judgment	20 mins	10
		Traverse the course in FPV Goggles	Measurement	3 mins	30
		Demonstrate safety practice at every at all steps	Judgment	continuously	10
B	Autonomous Flight	Perform drone programming using scratch/python etc. the coding process must be demonstrated and able to be uploaded to the drone	Judgment	3 hrs	20
		Fly drone autonomously following the designated flightpath and checkpoints with a number of obstacles	Measurement	5 mins	20
		Demonstrate safety practice at every at all steps	Judgment	continuously	10
2 Modules		1 Competition Day		208 mins	100 Scores

2.2. Possible gate and obstacle course



3. Equipment for the Competition

Module A		
Number	Tools	Specification
1	Quadrotor Frame	No more than 90mm frame size
2	Propellor	1 inch to 2 inch
3	Motor	Brushed or brushless
4	Cell	1s to 2s battery
5	Camera & VTx	5.8GHz
6	FPV Goggle	Open
8	Rx and Tx	2.4 MHz

Module B		
Number	Tools	Specification
1	DJI Tello	Any
2	Battery	3 pcs
3	Battery charger	1 pcs
4	Laptop / Tablet	With preferred software installed and working wifi connectivity