



Lawrence & Mayo

ESTD. 1877

Agricultural Drones



For More Information, Contact: Mr Glen D'souza: 09820239443 | instmum@lynxinst.com
Mr. Ranga Raju: 094484 40919 | lar@lynxinst.com | www.lynxinst.com

5L Spraying Drone

5L Spraying Drone



Configuration Description:

MX405 KIT :

1. MX405 frame x 1
2. 5L pesticide water tank x 1
3. Distribution board x 1
4. Spray system x 1

(The above list does not include the motor base, the shell default: black plastic shell)

MX405 RTF:

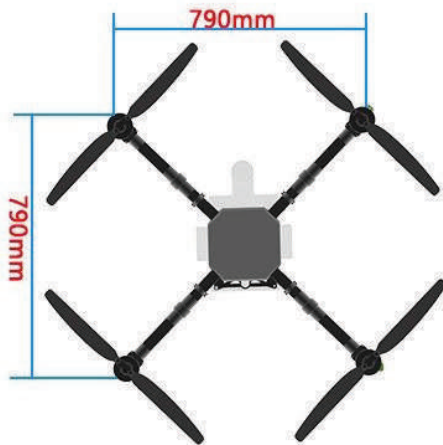
1. MX405 KIT
2. hobbywing X6 power system x 4
3. JIYI K3A pro FC x 1
4. SKYDROID T12 Remote control x 1
5. Brushless water pump x 1
6. Pressure nozzle x 2
7. Flowmeter x 1

(The above does not include batteries and chargers)



Compatible with spreading system, Easily exchange between spreading and spraying system just remove few screws. (Spreading system is an optional function, please contact customer service if needed)

Description	Parameter
Model	JMR-X1100
Dimension	80x80x40 cm
Dimension (folded)	46x46x40 cm
N.W. (W/O battery)	5.7kg
Max. Take off Weight	13 kg
Payload	5 kg
Control Radius	1000~2000 meters
Max Flight Height	30 meters
Flight Speed	1~9 meters
Spray Width	3~5 meters
Hovering time (W/O load)	16~20 minutes
Flight time (spraying)	11~13 minutes
Flow of the pump	1.2~1.3L/minutes
Battery Capacity	6S 12000mAh 20C 22.2V
Charger	20A Balance DC Charger
Function	Description
Flight Mode	Manual/Spraying work/GPS/Ground Control System
Safe Protection	Low Battery RTL/One Key RTL/Fail safe RTL
Spraying System	Pressure type pump and nozzle





Lawrence & Mayo
ESTD. 1877



For More Information, Contact: Mr Glen D'souza: 09820239443 | instmum@lynxinst.com
Mr. Ranga Raju: 094484 40919 | lar@lynxinst.com | www.lynxinst.com



22L Spraying Drones



Lawrence & Mayo
ESTD. 1877

22L Spraying Drone

G20 Agricultural drone flight platform

The effective capacity is 22L, using a quick-disconnect double tank and a dual battery layout. Eight-axis embracing folding structure, optional four pumps, eight nozzle spraying system. At the same time, peripherals can be expanded, optional RTK, three-way radar, FPV camera and so on.



22L

22L effective capacity



Quick release
dual battery



Quick release
double water tank

IP65

IP65 rated waterproof



Customization

Wheelbase: 2122mm Expanded size: 2050*2050*643mm Folding dimensions: 1107*1107*643mm Recommended Equipment (Not Included) Motor: X6, 6215 Blade: 23-24 inch folding paddle Electric: 80A FOC Power supply voltage: 12S



Specifications

Frame parameters:

Wheelbase: 2122mm

Expanded size: 2050*2050*643mm

Folding size: 1107*1107*643mm

Medicine box capacity: 11L*2

Frame weight: 14kg (excluding spray system)

Recommended configuration:

Motor: hobbywing X8 40mm/8118

Paddle: 28-32 inch folding pulp

ESC: 80A FOC

Supply voltage: 12S

Maximum takeoff weight: 55kg



Encircled folding structure



16L Oil-Electric Hybrid



Lawrence & Mayo
ESTD. 1877

16L Oil-electric hybrid agricultural drone, full set with generator UAV



Detailed Parts



Whole machine*1



16L water tank*2



Fuel tank*1




Charger*1



Battery*2

Product Specifications

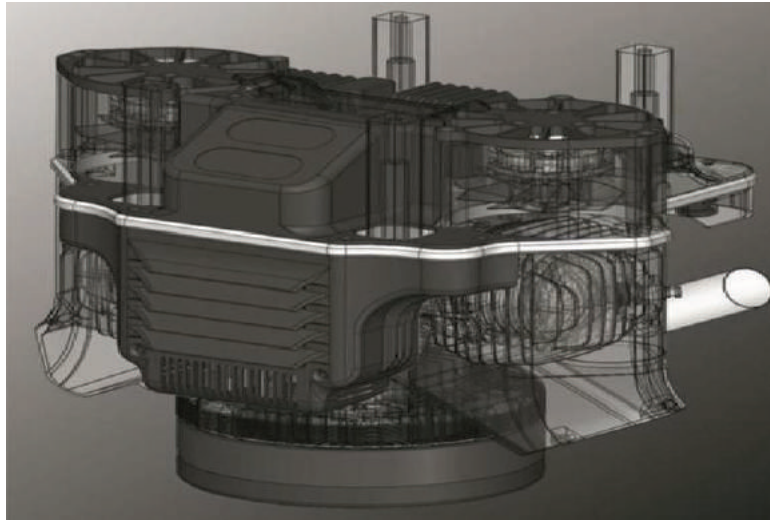
Aircraft parameters:

Take-off weight	44kg	
Expanded size	1171*565*553mm	
Folding size	755*860*565mm	
Diagonal wheelbase	1500mm	
Flying distance	5000 meters	
Flying height	120 meters	
Speed	Speed can be adjusted according to personal circumstances	

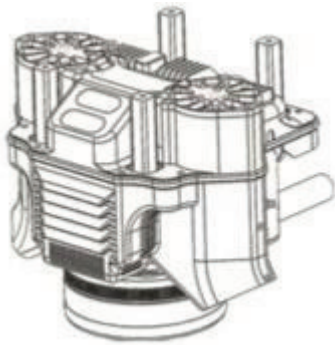
Power parameters:

	Flight control system	K++
	Motor	10015-100kv
	ESC	150A FOC
	Propeller	3690
	Spraying system	working voltage 48V
	Lithium battery:	6S-10000mah
	Spray width	about 5 meters

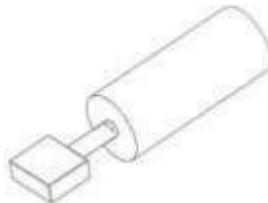
Engine Specifications



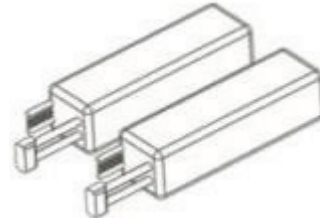
Weight	7.2kg in total
Power	Engine Power 6kW
Size	270(length)*310(wide)*252(height)mm
Compatible Machine	Multi-rotor UAV, VTOL
Maximum take- off weight of compatible machine	Quad copter for Industry use: 38kg Quad copter for Agricultural use: 49kg (Max take-off weight should not exceed the weight recommended)
Dynamic voltage of compatible machine	12S
Fuel consumption	700g/kW · h (6L/h while hovering)
Temperature limitation	-20~40°C
Theoretical ceiling height(altitude)	1000m (in standard atmospheric pressure)
Fuel Oil	95# or other gasoline which has the number bigger than 95# plus 2T lubricating oil(match the JASO FD standard)



Engine x 1



Trigger x 1



Batteries x 2(Choices available)



Controller x 1



Spanner x 1

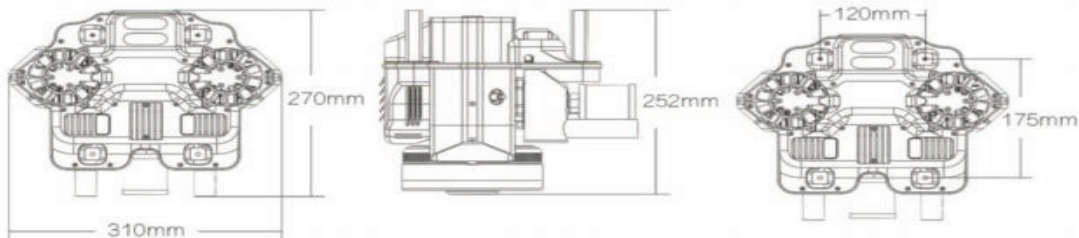


Oil Container x 1

Detailed Parts of Engine

Installation & Connection

1. Installation



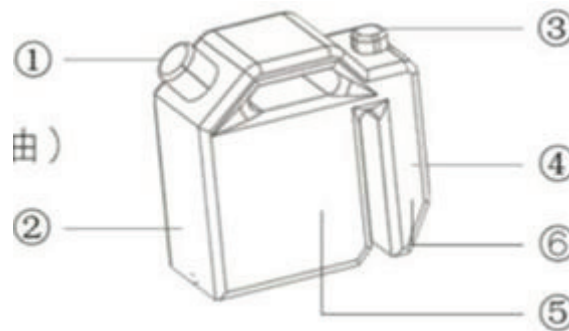
2. Connection



- (1) Button (to switch over the status of engine)
- (2) LED - red light (The red light indicates that the engine is off)
- (3) LED - yellow light (The yellow light indicates that the engine is idle and started)
- (4) LED - green light (The green light indicates that the engine is operating at full power)
- (5) LED - blue light (The blue light indicates that the standby battery is fully charged)
- (6) Data line port (connected to control box)

- (7) LCD prompt - RPM (engine speed)
- (8) LCD prompt - VOL (current voltage)
- (9) LCD prompt - T1 (Current temperature of left cylinder)
- (10) Status indicators: STOP/ IDLE/ RUM
- (11) LCD prompt - Engine cumulative working time
- (12) LCD prompt - T2 (Current temperature of right cylinder)
- (13) LCD prompt - Current engine status

Fuel



- (1) Gasoline inlet (standard 92# - 95# gasoline)
- (2) Gasoline storage tank
- (3) Engine oil inlet ()
- (4) Engine oil storage tank
- (5) Gasoline scale
- (6) Engine oil scale

- ☒ When the usage time is less than 10 hours, gasoline and engine oil are pre-mixed at 25: 1 (volume ratio).
- ☒ After 10 hours of use, gasoline and engine oil should be pre-mixed at 30: 1 (volume ratio).

It is forbidden to mix and use lubricating oil of different manufacturers and brands, otherwise it will cause serious blockage of the carburetor.

Before starting

1. Check whether the exhaust pipe is firmly installed, whether there is leakage at the connection of the exhaust port.
2. Check if there is any leakage in the tubing.
3. Check whether the ratio of fuel to engine oil is correct and whether the fuel is clean and free of impurities.
4. Check the position of the control switch and whether the LED can be displayed normally.
5. Check whether the battery reaches 47.5V or more (12S 8000mah or more capacity, SA150 plug).

The RC ground-end state switching interface is provided with a 5V power supply line. If the receiver or aircraft control is powered, please cut off the power cord of the RC interface, one of the three lines.

Ignition

1. Connect to start the controller system and power on, the control switch is switched to the idle speed position, the controller LED light is yellow LCD screen status prompt is IDLE, and the motor has a buzzing sound when power is turned on.
2. Press the starter switch and release immediately after the engine starts. If it does not start after pressing for more than 2 seconds, close the choke, press the start switch for 1 second to suck oil, and then open the choke to start the engine. Unplug the start up controller immediately after start up.
3. Excessive oil absorption will cause the engine to stall. You need to remove the spark plug and use the starter to let the engine idle to drain the oil. If the motor fails to rotate after pressing the starter button, you need to pull out the starter connector and reinsert it to restart the start-up procedure.
4. If the engine cannot be started, please refer to the list of common faults to eliminate the fault.

Operation

When starting, the carburetor needs to absorb oil. Connect the bus power first, push the choke handle up to make the choke door in the closed position, press the starter button, push the choke handle down, make the choke door open, and then press the starter button to start the engine.

1. The cold car start allows the engine to keep running at idle speed for one minute to warm up, and the warm car state does not need to warm up. (There will be a "beep beep" prompt tone after connecting the initiator).
2. After the engine enters the idling / running state, the temperature of T1 and T2 reaches 50 ° C and the air cooling is turned on. You can use your hand to approach the air outlet to detect whether the wind condition is normal.
3. The control switch is switched to the running state, and the controller LED displays "green light" (Caution! Do not switch to the running state when the controller is not unplugged).
4. Observe the blue light of the controller bus voltage. If the blue light flashes, the bus voltage is not enough. Please keep it running. The long blue light indicates that the bus voltage has reached the rated value and the program can be started to take off.
5. During the flight, the flight attitude changes rapidly, and the bus voltage fluctuates reasonably up and down. If it is found that the bus voltage drops rapidly below 45V, in order to ensure flight safety, it is necessary to land and check the fault immediately.
6. The backup battery backup time depends on the battery capacity and load. Never disconnect the battery when the engine is not turned off.
7. After the aircraft landed, switch the engine to idle speed and wait for more than 30 seconds to shut down the engine. At this time, the air-cooled heat dissipation device will continue to work until the temperature of T1 and T2 is lower than 50° C. The heat dissipation device gradually reduces the power until it automatically turns off.
8. There is a working state switching button on the right side of the LCD screen. Short press, the working state switches between idle speed and power running state. Press and hold for 3 seconds, the working state will switch from idle speed and power running state to flame out state, and the engine will go out.

Warning: Do not touch the engine and exhaust pipe during engine operation or within 5 minutes after stopping to avoid high temperature burns!

Stop

- ☒ After landing, set the switch to the idle position (LED-yellow light) for one minute. After the engine is sufficiently cooled, set the switch to the flame-off position (LED-red light).
- ☒ After use, clean the oil dust on the surface of the engine and keep the surface of the engine clean. The remaining oil in the oil tank is poured into other containers for storage to ensure that there is no oil in the oil tank to avoid dangerous accidents.

Maintenance

- ☒ Regularly check the degree of spark plug carbon deposits, remove spark plug carbon deposits, and check spark plug electrode gap: the normal value is 0.6-0.7mm.
- ☒ Regularly clean the carburetor. Insufficient fuel supply during operation will cause the engine to overheat, shorten the service life, and damage the engine in severe cases.
- ☒ Regularly check the backup battery. If the voltage of each battery has a voltage difference, please use a balanced charger to charge it to balance the voltage.
- ☒ When not in use for a long time, remove the spark plug, inject 10 grams of 2T oil into the cylinder, turn the engine five times, and install the spark plug.

Troubleshooting

Status	Fault check items	Solution
No display on LED screen	Line interface	Re-plug and confirm to be firm and reliable
Unable to start	No response after the starter is connected for the second time	Re-plug the starter / backup battery is low
	Check if the choke door is closed	Open the choke
	Whether the oil supply pipe is damaged or leaking	Replace the oil supply pipe
	1. Remove the spark plug and observe whether there is gasoline infiltration. 2. If the fuel supply is normal, the spark plug is placed on the engine casing, and turn the engine to see if the spark plug flashes white.	1. Carburetor clogged. 2. The spark plug flashes dark red or there is no flash over, replace the spark plug. 3. Defective ignition coil, contact the manufacturer for repair.
	Air filter clogged	Remove the air filter housing, clean the sponge filter and re-install it
Yellow light flashes	Engine temperature is too high	Restart after the engine temperature drops to a safe range

Unstable engine speed, fluctuations and insufficient output power	Poor fuel quality, or long-term storage	Change fuel
	Carburetor clogged	Cleaning the carburetor
	Air filter clogged	Clean the air filter sponge refill
	There are air bubbles in the fuel supply pipe	Check if the tubing is damaged
	The controller is not working	Contact the manufacturer
	Engine power drops	
	Mechanical parts failure	

Precautions

When using the F6000 hybrid product, if the operation is improper, the aircraft may cause a certain degree of injury and damage to personal property. Please pay attention to safety when using it.

1. Be sure to match the 12S (48V) battery with the voltage indicated in the user manual and meet the capacity above 8000 mah .
2. Make sure that the installation of the F6000 hybrid and fuel tank is located in the center of the fuselage.
3. When installing F6000 oil-electric hybrid, pay attention to that the top of the heat dissipation device is not blocked, and the suction is smooth .
4. Keep the installation position of the flight to control systems as far away as possible from the F6000 hybrid, so as to reduce the electromagnetic interference between the equipment to a minimum.
5. Before each flight, make sure that the battery has sufficient power. If the power is too low, the starter will not start the engine.
6. Switch to idle speed after landing for a period of time and then close. Conducive to the long-term use of the engine.
7. Do not repair or replace product part by yourself, you can directly contact the manufacturer to consult the after-sales and solutions of the product .
8. Strictly abide by the official recommended maximum take-off weight to avoid damage caused by insufficient power during the flight .
9. If the battery is powered by two sets of 6S in series, please make sure the voltage of the two sets of batteries is the same.
10. The F6000 oil-electric hybrid will stop at idle speed after flight, and the heat dissipation device will continue to work for a period of time, which is normal.
11. If the product needs to be stored for a long time, do not place it in a humid place and start it every once in a while to ensure the normal operation of the engine .
12. Please keep away from the exhaust pipe after landing to avoid burns.



Lawrence & Mayo
ESTD. 1877

13. This product is a non-waterproof device. Do not use liquid for cleaning and soaking. Use a damp cloth to remove stains.
14. When installing F6000 hybrid products, make sure that the pillars that fix the engine are installed firmly and in the correction to achieve the best shock absorption .
15. Do not pull out the battery when the engine is not turned off to avoid burning the related electronic accessories.
16. Connect the starter to the engine to start. Pull out the starter after starting. Never switch the operating state when the starter is connected .
17. If the product is abnormal during use, please contact the manufacturer for analysis and treatment in time. Do not automatically modify and repair it.

AHMEDABAD

Rangkrupa Chambers,
Near Parimal Gardens, Ellis Bridge,
Ahmedabad - 380 006
Tel : +91 79 - 26400284 / 2607 / 2754 / 26466160
instahm@lynxinst.com

KOLKATA

Sri Sai Plaza, 89,
AJC Bose Road,
(Opp. Entally Market), Kolkata-700 014.
Tel.: +91 33-40511820 , 40511800, 40511822.
calgovt@lynxinst.com

SECUNDERABAD

S.No. 13 to 18 & 181, S.K. Reddy Complex,
Chitta Reddy Colony, Tarbund,
Secunderabad - 500 009
Tel. Nos. +91 40-49119972, 27895015
T/F No. +91 40 27898056.
insts@lynxinst.com

GUWAHATI

G.S.Road, Bhangagarh,
Shanti Complex,
Guwahati-781 005. Assam.
Tel. : +91 361-2468994, 2468995.
instguw@lynxinst.com

NEW DELHI

76, Janpath,
New Delhi - 110 001
Tel : +91 11 - 23356262
inst-del@lynxinst.com

BENGALURU

179-G, 96 (5/1), Narsimharaja Road,
Bengaluru - 560 002
Tel : +91 80 - 22217900/ 22277901
Fax : +91 80 - 22244492
banstm@lynxinst.com

NAGPUR

S.No. G-2, Bhiwapurkar Chambers,
Next to NGDA Showroom,
Dhantoli, Nagpur-440 012.
Tel. : +91 712 2460058, 2460068.
nagpurinst@lynxinst.com

VISAKHAPATNAM

28-2-55, Tenneti Square, Jagadamba Centre,
Visakhapatnam - 530 020
Tel. : +91 891-2505160.
invz@lynxinst.com

ODISHA

Plot No.501/1741/1848,
Kharvel Nagar, Janpath Road,
Bhubaneswar-751 001, Odisha.
Tel. : +91 674-2380885.
inst-bbsr@lynxinst.com

CHENNAI

68, Anna Salai,
Chennai - 600 002,
Tel.: 28412912 / 28415213
Fax : 044-22548556
inst-chen@lynxinst.com

GOA

36, Mascarenhas Bldg.,
M.G. Road, Panaji,
Goa - 403 001
Tel : +91 832 - 222 4343 / 243 1414
sf@lynxinst.com

PUNE

308, 3rd Floor, Kubera Chambers,
Opp. Sancheti Hospital,
Shivajinagar, Pune - 411 005
T/F : +91 20 - 25535597 / 3566
puneinst@lynxinst.com

COCHIN

D.No. 62/4040
Iyyattil Junction, Chittoor Road,
Ernakulam, Cochin - 682 011
Tel.: +91 484-4058239, 2368654.
inst-coc@lynxinst.com



All trademarks and logos belong to respective owners.

For More Information, Contact: Mr Glen D'souza: 09820239443 | instmum@lynxinst.com
Mr. Ranga Raju: 094484 40919 | lar@lynxinst.com | www.lynxinst.com