

HGNC Introduction

Presented by HG Robotics



Overview

What is HGMC?

HGMC is a ground station application suite designed for vehicles developed by, but not limited to, HG Robotics. It is mainly compatible with Android mobile devices and Windows. Below are the highlight features provided out of the box:

01

Customer Management

Ability to collect customer information including their projects.

02

Mission Planning

Ability to plan the flights upfront based on the mission characteristics. The plan can also be used repeatedly.

03

Flight Monitoring

Monitor vehicles during the operations. The system provides status information and warns users when incidents occur.





First Look

Home Screen

HGMC!										
) @		LSR FRW	elopme					
		Pete	er Strum							
	Mode Online	Offlin	ne							
	Language									
1	EN	TH								
	Units Area		Length		Volume	Speed		Peter Strumps2		
	Acre	•	Meter	•	Litre	▼ Kilo-me	ter per hour	ome to HGMC!		
-		х •		х •						
-		х •	THE R				101	iew Customers	-	MARKATON
							Ø	Edit Profile		
							•	Logout	a and a second	K. Margaret
			出行的			33				
			XXA			M VALENTIN M	I KAPSKS	OWNER AND	MARINA DE	N.S. MARK
124			141			11x W	tion k	14 KOUDAN		MANAR
WAR		14	IA		N.M.	MAS 14	1447		e XIVA	
100	M/	1	N. AN	la vk		DAR)		E- ANYANA		e, MRSU
			1 MA		Ken	HSM			N/M	



Function List

Users can start working by "View Customers" or editing their own profiles

User Menu

The system can be set to operate offline.

Users can choose their language preferences and units used for displaying.



First Look

Application Setting

I HGMC!				
	CONTRACTOR	aloburator Develor	Development Development	elotiment
	APPLICATION SETTI	NGS		
	Overall Scaling			
	Max Dist Vehicle (m)			
	Max Dist User (m)			
	Max Acceptable HDOP			
	9 Lowpass for High Altitude			
and the second second business	0.10 Lowpass (Gain) for High Altitude			
	0.60 Range Finder Glitch			
	1000 Nav Command Delay(s)			
	1 Map Type			2
	Esri HGMC Version:			
Constant Constant	dev:ed1f7885		Mail Log	
的人们的人们的	Clear Cache View L	icense		🗸 ок
C. Yan Makika	Marx R Land		的影响人	A / KM



Parameters

Users change system parameters including map source and font scaling

Log Viewer

Displays the communication logs from connected drones. Users can also submit the log via email.



First Look

Connect to Drone



Telemetry Toolbar

Show the list of telemetry items such as battery status, GPS status, and flight mode





Customer Management

Customer List

HGMC!			
 (€) (€)	LVLOG LSR FRWE SPYR DISA	RMED O PWM min 1100	PWM max 1600 Development Development Development
☐ 100 % ♀ 10 sats BATT 50.0 V GPS hdop 1.21		Stabilize X/A alt. 0.0 m ATS spd 0.0 km/h LASER	O.01 (0,0,0) COMP ACCEL
New Customer Search Here Select Sort Item	RobinWood	Lucky Farm	Southwind Kerner
	RobinWood 2 Fields	Lucky Farm 4 Fields	Southwind Farm 5 Fields
	Bow Detail	Bow Detail	Show Detail



Customer List

List of all customers which individually presented by cards. Users can input some basic detail such as pictures and names.

Sort and Filter

Ability to search and sort customers by selected criteria.





Customer Management

Field List

HGMC!				
	LVLOG LSR FRWE SPYR DISAR	4400	PWM max 1600	lopment Developme
☐ 100 % ♀ 10 sats BATT 50.0 V GPS hdop 1.21	RSSI RC STA		0.01 (0,0,0) COMP ACCEL	
RobinWood				
New Field Search Here Select Sort Item	Golf Club	Suphanburi		
	1 Missions	1 Missions		
	E Select	Select		



Field List

List of fields of individual customer

Sort and Filter

Ability to search and sort fields by selected criteria





Mission Planning

Planning Workspace



Mission List

List of missions of selected field. The panel also displays the mission summary.

Map and Mission Area

Display the mission area on the satellite map.

Mission and Flight Editor Tool

Edit mission parameters such as speed and altitude. Edit mission area and mission groups. Identify emergency landing points (Rally points)





HG ROBOTICS

Mission Planning

Editing Area



Area Editor

Define the mission area boundary and its coordinates.



Mission Planning

Editing Flight Parameters



Mission Editor

Define flight parameters such as speed, flight angle or altitude.





Flight Monitoring

Pre-Flight Checklist

HGMC!			
\mathbf{O}		FRWE SPYR DISARMED	PWM max 1600
🔲 100 % _{BATT} 50.0 V	♀ 10 sats	← Offline Cuided Cuided RC STATS STATS STATS STATS State Content of the	N/A Ø 0.03 Ø (0,0,0) R COMP ACCEL
			House Royal That
	Manual Checklist		Automated Checklist
		Test Connection to Drone	connected to Drone simulator
		Check GPS Signal	found 10 visible satellites & hdop = 1.21
		Check Battery	Battery voltage = 50 V
B 5	5	Prepare flight mode	Flight Mode set to Guided
		Check flight parameters	All parameters check completed
F		Check firmware information	Firmware checking completed
•		Send Flight plan	Waypoints total of 51 sent to vehicle
		Reset mission	Reset mission index to 0
La Salar	initia Lite		
Morni			
Group Group		A Back	Begin Checkup 🕨 Start
Altitude	e: 20.0		
Distanc		Ithicknoh	



Automated Checklist

Automated self-checking mechanism before the mission start.





Flight Monitoring

Monitoring Workspace



Live Monitoring

Display the drone location in real-time manner when operating missions.

Flight Status

Display the flight information.

Notification

Display the warning messages when any incidents occur, such as battery voltage considerably dropped, or unstable GPS signal.

