## README for BRAIN2 JETI INTEGRATION with BRAIN.bin file version 1.5 (2017 May 29):

You can use the integration together the telemetry sent by Brain (included that of ESC) with every kind of EX Bus Receiver, otherwise if you want to use the Jeti integration with also other sensor than that yet emulated by Brain, is necessary to use a REX receiver;

1) From "http://www.msheli.com/en/MSHeli-Protos-Flybarless-System/downloads" download the BRAIN.ZIP file and unzip it, it contains this README file and a BRAIN.bin file;



2) Connect your Jeti transmitter to a PC via USB cable and power it, and respond YES to the request "USB?".

<sup>**</sup> ****	Autorot.	■ Rx: 5.1V	100%	
	Conn	ect USB?		
No			Yes	

After some seconds, a window with the internal memory of Jeti transmitter open on your PC. Copy the "BRAIN.bin" file in to the "Devices" folder of your Jeti transmitter and after this close the Window and push the "Esc" button in your transmitter;

- 3) Power your receiver and bind it with the bind plug to the transmitter. Remove bind plug and let the receiver powered;
- 4) Go with the Jeti menu to "System" -> "Configuration" -> "Transmit frequency" and set to 100Hz (framerate = 10mSec.);



5-b1) With "R.." receivers, select "Serial Link", to "EX Bus";

Tx Autorot. 🔳 Rx	: 5.1V I 100%	Tx Autorot.	Rx: 5.1V   100%		
Duplex R9-E	x	Select Option			
Serial Link	EX Bus 💌	JETIBOX & Ser	/0		
JETIBOX/EX Bus pin: Ext.		PPM Positive			
General Settings	>>	PPM Negative			
Fail-Safe	>>	EX Bus			
Alternative Pin Config	>>				
Receiver Outputs	>>	001			
Reset to factory defaults					
Back 🗙 🗢 🖵	acmd Ok	Esc	Ok		
		"			

5-b2) With "REX.." receiver select "Alternative Pin Config" -> E1, E2, E.., to "EX bus";

	Autorot. 🔳	Rx: 5.2V	100%	T×I	Autorot.		Rx: 5.2V	100%
Duplex REX3					REX3 Pin Config			
Gene Fail-S	ral Settings Safe		>> >>	<< B	ack ut pin		Functi	ion
Altern Recei Resei	native Pin Config iver Outputs t to factory defaults		>> >>	OutPi OutPi OutPi OutPi	in 1 in 2/E1 in 3/E2 in 4/Ext	Servo () EX Bus () EX Bus () JETIBOX/Sensor ()		vo 🖲 Bus 🖶 Bus 💽
Back	× *	Басмр	Ok	Back	×	\$	ВСМВ	Ok

- 6) Connect your Brain2 unit via USB cable to your PC, open the Windows application, update Brain software and firmware to the last version;
- 7) With Windows application, on the panel 3 "Receiver Selection" of the wizard, select the "EX Bus" receiver type icon;



- 8) As schematic in panel 4 "Connections", connect a standard 3pole female/female cable to the CH3/S-REC connector of the Brain and the other end in the port "EXT" of your "R.." receiver or in one of the port E1, E2, E.. (not the EXT) of your Rex receiver (yet binded to the transmitter);
- 9) To activate the EX Bus protocol, you must cycle power of the unit removing also the USB cable (for safety reason, don't power your motor that must be disconnected). Power the unit from connectors to power also the Jeti receiver;
- 10) Verify in panel 5 "Transmitter setup" the correct direction of each channel as explained in the lateral instructions and eventually correct in the transmitter reversing the channel in menu -> "Model" – "Servo Setup" -> Reverse.

Autorot. 🔳 Rx: 5.2V 100%	<sup>T</sup> x <b>a</b> Autorot. ■ Rx: 5.2V 100%
Model	Servo Setup
Select Model	Roll (2) 0%
New Model	Max positive 100%
Basic Properties	Max negative100%
unctions Assignment	Max positive limit 125%
Servo Assignment	Max negative limit125%
Servo Setup	Reverse Yes 💽
Davias Evaluerar	(2) 🔶 🗭 着 👁 Ok

Now you are ready to use Jeti<->Brain integration entering with your transmitter in to Brain menu from menu - > Model -> Device Explorer.

Tx Autorot.	Rx: 5.1V   100%	Tx Autorot. 🔳 Rx: 5	5.1V I 100%
Device Exp	olorer	BRAIN	
R9 EX	✓ >>	Common parameters:	
BRAIN [1]	✓ >>	Unit Orientation	>>
RC Switch	>>	Servos	>>
		CCPM	>>
		Rescue	>>
		Governor	>>
		Setup parameters:	
\$	CMD Ok	Back 🗙 🗳 🚍	CMD OK





## THRa 🛨 💿 Basic 🕬 Edit

**Note1:** Brain vibrations cannot be recorded in the Jeti transmitter logs, but you can activate the "print screen" function that save the displayed image as a file in the transmitter SD when you toggle the associated switch.



Note2: When you select "EX Bus" receiver type in "Receiver Selection" wizard, the channels are assigned as when you create a new model in the Jeti transmitter from scratch. If you have yet used the Jeti transmitter using UDI protocol that have a different channel assignment, changing from UDI to EX bus protocol maybe you must reassign the channel in the transmitter: menu -> "Model" -> "Servo Assignment", 1=Throttle, 2=Roll, 3=Elevator, 4=Pitch, 5=Yaw, 6=Gyro sens., 7=Setup(renamed), 8=Aux Rescue(renamed). With Windows app, check also in panel 5 of wizard, and menu -> "Model" - "Servo Setup" end points are around +100%/-100%.



- **Note3:** To fast change big numbers, pressing the transmitter key "MENU", change the unit, the tens, the hundreds.
- **Note4:** NEVER use together the Jeti Brain Menu together with the Windows application and/or Android app and/or iOS app. Use only one at time.
- **Note5:** The Jeti integration was developed and tested with JETI transmitter ds-16 firmware 4.00 Dec 11 2015, with R9 firmware ver.03.24, Rsat2 ver.03.25, REX3 ver.01.02 receivers.
- **Note6:** Due to the big amount of FW code, Jeti integration work only on the new Brain2 units that have more memory for the FW code added.

## Release Notes:

Version 1.05

- Update with various improvements added and some parameters names changed / added Version 1.04

- Added under "Other", graphic Vibration analysis
- Added under Blade Size Preset, two / three blades selection and updated the Elevator D gains
- Added under Common Parameters, "Calibration Dial" menu
- Added under "Other -> Counters", the possibility of reset the four counters
- Added "Scorpion" to the list of ESC telemetry

- Revised some names ("Main Battery mA used" to "Main Battery mAh used", "FramerateTX" to "RxFramerate") Version 1.03

- Added selection of ESC with telemetry
- Added Correction factor for mAh parameter
- Added loggable ESC parameter in diagnostic
- Added activation of Check Mode in Servo menu
- Revised selection of Swashplate type
- Revised some label to better reading and more clear
- Revised order of the field in Governor

Version 1.02

- First official release