Use this tool to construct and test commands of the SimpleBGC32 Serial API protocol.

Commands can be tested in the SimpleBGC32 GUI - «Debug» tab, by inserting ID and payload and pressing the "SEND" button.

(Please enable macros execution to allow this tool to work)

CMD_CONTROL — do camera movements

Action	Parameter	Meaning	Value	Command ID	Payload (hex dump exl. headers and checksums)
5	00017701 14075	MODE NO CONTROL			T
Rotate YAW 45 degrees right with the default speed	CONTROL_MODE	MODE_NO_CONTROL	0	67	00 00 02 00 00 00 00 00 00 00 00 00 00 0
		MODE_NO_CONTROL	0		
		MODE_ANGLE	2		
	SPEED_ROLL	default	0		
	ANGLE_ROLL	0	0		
	SPEED_PITCH	default	0		
	ANGLE_PITCH	0	0		
	SPEED_YAW	default	0		
	ANGLE_YAW	45	2048		
	T		_1		
Rotate PITCH 90 degrees up	CONTROL_MODE	MODE_NO_CONTROL	0	67	00 02 00 00 00 00 00 29 00 00 F0 00 00 00 00
with the speed 5 deg./sec.		MODE_ANGLE	2		
		MODE_NO_CONTROL	0		
	SPEED_ROLL	default	0		
	ANGLE_ROLL	0	0		
	SPEED_PITCH	5	41		
	ANGLE_PITCH	-90	-4096		
	SPEED YAW	default	0		
	ANGLE YAW	0	0		
			<u>, </u>		
Rotate PITCH 45 degrees up	CONTROL MODE	MODE_NO_CONTROL	0	67	00 45 00 00 00 00 00 E1 02 00 F8 00 00 00 00
relative to the frame with the	_	MODE ANGLE REL FRAME +			
speed 90 deg./sec. When		CONTROL_FLAG_AUTO_TASK	69		
inished, send confirmation		MODE_NO_CONTROL	0		
and return to normal	SPEED ROLL	default	0		
operation mode.	ANGLE_ROLL	0	0		
	SPEED PITCH	90	737		
	ANGLE PITCH	-45	-2048		
	SPEED YAW	default	0		
	ANGLE_YAW	0	0		
	,o	-			
Home position: move ROLL to	CONTROL MODE	MODE ANGLE +		67	42 45 45 00 00 00 00 00 00 00 00 00 00 00 00
the horizon, PITCH and YAW to a neutral position relative to the frame. When finished, send confirmation and return		CONTROL_FLAG_AUTO_TASK	66		
		MODE_ANGLE_REL_FRAME +			
		CONTROL_FLAG_AUTO_TASK	69		
		MODE ANGLE REL FRAME +			
o normal operation mode.		CONTROL_FLAG_AUTO_TASK	69		
	SPEED_ROLL	default	0		
	ANGLE_ROLL	0	0		
	SPEED_PITCH	default	0		
	ANGLE_PITCH	0	0		
	SPEED YAW	default	0		
	ANGLE YAW	0	0		

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Leveled position: move ROLL, PITCH to horizon, YAW to neutral position relative to the frame. When finished, send confirmation and return to normal operation mode.	CONTROL_MODE	MODE_ANGLE + CONTROL_FLAG_AUTO_TASK	66	67	42 42 45 00 00 00 00 00 00 00 00 00 00 00 00
		MODE_ANGLE +	66		
		CONTROL_FLAG_AUTO_TASK			
		MODE_ANGLE_REL_FRAME + CONTROL_FLAG_AUTO_TASK			
	SPEED ROLL	default	0		
	ANGLE ROLL	0	0		
	SPEED PITCH	default	0		
	ANGLE_PITCH	0	0		
	SPEED_YAW ANGLE_YAW	default 0	0		
		CMD_EXECUTE_ME		NU — run menı	u actions
Switch Profile #3	CMD_ID	MENU_CMD_PROFILE3	3	69	03
				<u> </u>	
Calibrate accelerometer (single point)	CMD_ID	MENU_CMD_CALIB_ACC	6	69	06
Calibrate gyroscope	CMD_ID	MENU_CMD_CALIB_GYRO	9	69	09
Toggle motors On/Off	CMD ID	MENU CMD MOTOR TOGGLE	10	69	0A
	_			<u> </u>	-
Move all axes to home position (YAW centered,	CMD_ID			69	12
ROLL and PITCH to norizon)		MENU_CMD_HOME_POSITION	18		
,	RS_VAL – updat	te the value of selected pa		me w/out saving it to	EEPROM
CMD_SET_ADJ_VAF			ırameter(s) in runti		
CMD_SET_ADJ_VAF	NUM_PARAMS	te the value of selected pa	rameter(s) in runti		
CMD_SET_ADJ_VAF	NUM_PARAMS PARAM1_ID		rameter(s) in runti		
CMD_SET_ADJ_VAF	NUM_PARAMS PARAM1_ID PARAM1_VALUE	te the value of selected pa	rameter(s) in runti		
CMD_SET_ADJ_VAF	NUM_PARAMS PARAM1_ID	RC_SPEED_ROLL	arameter(s) in runti 3 19 100		
CMD_SET_ADJ_VAF	NUM_PARAMS PARAM1_ID PARAM1_VALUE PARAM2_ID PARAM2_VALUE	RC_SPEED_ROLL 100 RC_SPEED_PITCH 100	3 19 100 20 100		
CMD_SET_ADJ_VAF	NUM_PARAMS PARAM1_ID PARAM1_VALUE PARAM2_ID	RC_SPEED_PITCH	arameter(s) in runti 3 19 100 20		
CMD_SET_ADJ_VAF Set the speed of remote control for all axes to 100	NUM_PARAMS PARAM1_ID PARAM1_VALUE PARAM2_ID PARAM2_VALUE PARAM3_ID PARAM3_VALUE	RC_SPEED_ROLL 100 RC_SPEED_PITCH 100 RC_SPEED_YAW	3 19 100 20 100 21 100	31	03 13 64 00 00 00 14 64 00 00 00 15 64 00 00 00
CMD_SET_ADJ_VAF Set the speed of remote control for all axes to 100 Set the speed of follow mode	NUM_PARAMS PARAM1_ID PARAM1_VALUE PARAM2_ID PARAM2_VALUE PARAM3_ID PARAM3_VALUE NUM_PARAMS	RC_SPEED_ROLL 100 RC_SPEED_PITCH 100 RC_SPEED_YAW 100	3 19 100 20 100 21 100	31	03 13 64 00 00 00 14 64 00 00 00 15 64 00 00 00
CMD_SET_ADJ_VAF Set the speed of remote control for all axes to 100 Set the speed of follow mode	NUM_PARAMS PARAM1_ID PARAM1_VALUE PARAM2_ID PARAM2_VALUE PARAM3_ID PARAM3_VALUE NUM_PARAMS PARAM1_ID	RC_SPEED_ROLL 100 RC_SPEED_PITCH 100 RC_SPEED_YAW 100 FOLLOW_SPEED_ROLL	3 19 100 20 100 21 100 3 13	31	03 13 64 00 00 00 14 64 00 00 00 15 64 00 00 00
CMD_SET_ADJ_VAF Set the speed of remote control for all axes to 100 Set the speed of follow mode	NUM_PARAMS PARAM1_ID PARAM1_VALUE PARAM2_ID PARAM2_VALUE PARAM3_ID PARAM3_VALUE NUM_PARAMS PARAM1_ID PARAM1_ID PARAM1_VALUE	RC_SPEED_ROLL 100 RC_SPEED_PITCH 100 RC_SPEED_YAW 100 FOLLOW_SPEED_ROLL 60	3 19 100 20 100 21 100 3 13 60	31	03 13 64 00 00 00 14 64 00 00 00 15 64 00 00 00
CMD_SET_ADJ_VAF Set the speed of remote control for all axes to 100 Set the speed of follow mode	NUM_PARAMS PARAM1_ID PARAM1_VALUE PARAM2_ID PARAM2_VALUE PARAM3_ID PARAM3_VALUE NUM_PARAMS PARAM1_ID PARAM1_ID PARAM1_VALUE PARAM2_ID	RC_SPEED_ROLL 100 RC_SPEED_PITCH 100 RC_SPEED_YAW 100 RC_SPEED_YAW 100 FOLLOW_SPEED_ROLL 60 FOLLOW_SPEED_PITCH	3 19 100 20 100 21 100 3 13 60 14	31	03 13 64 00 00 00 14 64 00 00 00 15 64 00 00 00
CMD_SET_ADJ_VAF Set the speed of remote control for all axes to 100 Set the speed of follow mode	NUM_PARAMS PARAM1_ID PARAM1_VALUE PARAM2_ID PARAM3_ID PARAM3_VALUE NUM_PARAMS PARAM1_ID PARAM1_ID PARAM1_VALUE PARAM1_ID PARAM2_ID PARAM2_ID PARAM2_ID	RC_SPEED_ROLL 100 RC_SPEED_PITCH 100 RC_SPEED_YAW 100 FOLLOW_SPEED_ROLL 60 FOLLOW_SPEED_PITCH 60	3 19 100 20 100 21 100 3 13 60 14 60	31	03 13 64 00 00 00 14 64 00 00 00 15 64 00 00 00
CMD_SET_ADJ_VAF Set the speed of remote control for all axes to 100 Set the speed of follow mode	NUM_PARAMS PARAM1_ID PARAM1_VALUE PARAM2_ID PARAM2_VALUE PARAM3_ID PARAM3_VALUE NUM_PARAMS PARAM1_ID PARAM1_ID PARAM1_VALUE PARAM2_ID	RC_SPEED_ROLL 100 RC_SPEED_PITCH 100 RC_SPEED_YAW 100 FOLLOW_SPEED_ROLL 60 FOLLOW_SPEED_PITCH 60 FOLLOW_SPEED_YAW	3 19 100 20 100 21 100 3 13 60 14 60 15	31	03 13 64 00 00 00 14 64 00 00 00 15 64 00 00 00
CMD_SET_ADJ_VAF Set the speed of remote control for all axes to 100 Set the speed of follow mode	NUM_PARAMS PARAM1_ID PARAM1_VALUE PARAM2_ID PARAM3_ID PARAM3_VALUE NUM_PARAMS PARAM1_ID PARAM1_ID PARAM1_VALUE PARAM1_ID PARAM2_ID PARAM2_ID PARAM2_ID	RC_SPEED_ROLL 100 RC_SPEED_PITCH 100 RC_SPEED_YAW 100 FOLLOW_SPEED_ROLL 60 FOLLOW_SPEED_PITCH 60	3 19 100 20 100 21 100 3 13 60 14 60	31	03 13 64 00 00 00 14 64 00 00 00 15 64 00 00 00
CMD_SET_ADJ_VAF Set the speed of remote control for all axes to 100 Set the speed of follow mode control for all axes to 60	NUM_PARAMS PARAM1_ID PARAM1_VALUE PARAM2_ID PARAM3_ID PARAM3_ID PARAM3_VALUE NUM_PARAMS PARAM1_ID PARAM1_VALUE PARAM1_VALUE PARAM2_ID PARAM2_ID PARAM3_ID PARAM3_ID PARAM3_ID PARAM3_ID PARAM3_ID PARAM3_VALUE	RC_SPEED_ROLL 100 RC_SPEED_PITCH 100 RC_SPEED_YAW 100 FOLLOW_SPEED_ROLL 60 FOLLOW_SPEED_PITCH 60 FOLLOW_SPEED_YAW	3 19 100 20 100 21 100 3 13 60 14 60 15 60	31	03 13 64 00 00 00 14 64 00 00 00 15 64 00 00 00 00 00 00 00 00 00 00 00 00 00
CMD_SET_ADJ_VAF Set the speed of remote control for all axes to 100 Set the speed of follow mode control for all axes to 60 Set PID gains to 1.5 for all	NUM_PARAMS PARAM1_ID PARAM1_VALUE PARAM2_ID PARAM3_ID PARAM3_VALUE NUM_PARAMS PARAM1_ID PARAM1_ID PARAM1_VALUE PARAM2_ID PARAM1_VALUE PARAM2_ID PARAM2_ID PARAM3_ID PARAM3_VALUE PARAM3_ID PARAM3_VALUE NUM_PARAMS	RC_SPEED_ROLL 100 RC_SPEED_PITCH 100 RC_SPEED_YAW 100 FOLLOW_SPEED_ROLL 60 FOLLOW_SPEED_PITCH 60 FOLLOW_SPEED_YAW 60	3 19 100 20 100 21 100 3 13 60 14 60 15 60	31	03 13 64 00 00 00 14 64 00 00 00 15 64 00 00 00 00 00 00 00 00 00 00 00 00 00
CMD_SET_ADJ_VAF Set the speed of remote control for all axes to 100 Set the speed of follow mode control for all axes to 60 Set PID gains to 1.5 for all	NUM_PARAMS PARAM1_ID PARAM1_VALUE PARAM2_ID PARAM3_ID PARAM3_ID PARAM3_VALUE NUM_PARAMS PARAM1_ID PARAM1_VALUE PARAM2_ID PARAM2_ID PARAM2_VALUE PARAM3_ID	RC_SPEED_ROLL 100 RC_SPEED_PITCH 100 RC_SPEED_PITCH 100 RC_SPEED_YAW 100 FOLLOW_SPEED_ROLL 60 FOLLOW_SPEED_PITCH 60 FOLLOW_SPEED_YAW 60 PID_GAIN_ROLL	3 19 100 20 100 21 100 3 13 60 14 60 15 60 3 42	31	03 13 64 00 00 00 14 64 00 00 00 15 64 00 00 00 00 00 00 00 00 00 00 00 00 00
CMD_SET_ADJ_VAF Set the speed of remote control for all axes to 100 Set the speed of follow mode control for all axes to 60 Set PID gains to 1.5 for all	NUM_PARAMS PARAM1_ID PARAM1_VALUE PARAM2_ID PARAM2_VALUE PARAM3_ID PARAM3_VALUE NUM_PARAMS PARAM1_ID PARAM1_VALUE PARAM2_ID PARAM2_VALUE PARAM2_ID PARAM3_ID PARAM3_ID PARAM3_ID PARAM3_ID PARAM3_ID PARAM3_VALUE NUM_PARAMS PARAM1_ID PARAM1_ID PARAM1_ID PARAM1_ID PARAM1_VALUE	RC_SPEED_ROLL 100 RC_SPEED_PITCH 100 RC_SPEED_YAW 100 RC_SPEED_YAW 100 FOLLOW_SPEED_ROLL 60 FOLLOW_SPEED_PITCH 60 FOLLOW_SPEED_YAW 60 PID_GAIN_ROLL 1,5	3 19 100 20 100 21 100 3 13 60 14 60 15 60 15 70	31	03 13 64 00 00 00 14 64 00 00 00 15 64 00 00 00 00 00 00 00 00 00 00 00 00 00
CMD_SET_ADJ_VAF Set the speed of remote control for all axes to 100 Set the speed of follow mode control for all axes to 60 Set PID gains to 1.5 for all axes	NUM_PARAMS PARAM1_ID PARAM1_VALUE PARAM2_ID PARAM3_ID PARAM3_ID PARAM3_VALUE NUM_PARAMS PARAM1_ID PARAM1_VALUE PARAM2_ID PARAM2_ID PARAM2_VALUE PARAM3_ID	RC_SPEED_ROLL 100 RC_SPEED_PITCH 100 RC_SPEED_PITCH 100 RC_SPEED_YAW 100 FOLLOW_SPEED_ROLL 60 FOLLOW_SPEED_PITCH 60 FOLLOW_SPEED_YAW 60 PID_GAIN_ROLL	3 19 100 20 100 21 100 3 13 60 14 60 15 60 3 42	31	DEEPROM 03 13 64 00 00 00 14 64 00 00 00 15 64 00 00 00 03 0D 3C 00 00 00 0E 3C 00 00 00 0F 3C 00 00 00 03 2A 46 00 00 00 2B 46 00 00 00 2C 46 00 00 00

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	PARAM3_ID	PID_GAIN_YAW	44		
	PARAM3_VALUE	1,5	70		
Change follow mode to "Follow PITCH + YAW"	NUM_PARAMS		1	31	01 1F 02 00 00 00
	PARAM1_ID	FOLLOW_YAW_PITCH	31		
	PARAM1_VALUE	2	2		
				·	
Change follow mode to "disabled"	NUM_PARAMS		1	31	01 1F 00 00 00 00
	PARAM1_ID	FOLLOW_YAW_PITCH	31		
	PARAM1 VALUE	0	0		