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)
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 00 08
		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				
Rotate PITCH 90 degrees up with the speed 5 deg./sec.	CONTROL_MODE	MODE_NO_CONTROL	0			67	00 02 00 00 00 00 00 29 00 00 F0 00 00 00 00
		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				
Rotate PITCH 45 degrees up **relative to the frame** with the speed 90 deg./sec. When finished, send confirmation and **return to normal operation mode.**	CONTROL_MODE	MODE_NO_CONTROL	0			67	00 45 00 00 00 00 00 E1 02 00 F8 00 00 00 00
		MODE_ANGLE_REL_FRAME + CONTROL_FLAG_AUTO_TASK	69				
		MODE_NO_CONTROL	0				
	SPEED_ROLL	default	0				
	ANGLE_ROLL	0	0				
	SPEED_PITCH	90	737				
	ANGLE_PITCH	-45	-2048				
	SPEED_YAW	default	0				
	ANGLE_YAW	0	0				
Home position: move ROLL to the horizon, PITCH and YAW to a 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 45 45 00 00 00 00 00 00 00 00 00 00 00 00
		MODE_ANGLE_REL_FRAME + CONTROL_FLAG_AUTO_TASK	69				
		MODE_ANGLE_REL_FRAME + 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				

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 00
		MODE_ANGLE + CONTROL_FLAG_AUTO_TASK	66				
		MODE_ANGLE_REL_FRAME + 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				

CMD_EXECUTE_MENU — run menu actions

Switch Profile #3	CMD_ID	MENU_CMD_PROFILE3	3			69	03
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
Move all axes to home position (YAW centered, ROLL and PITCH to horizon)	CMD_ID	MENU_CMD_HOME_POSITION	18			69	12

CMD_SET_ADJ_VARS_VAL – update the value of selected parameter(s) in runtime w/out saving it to EEPROM

Set the speed of remote control for all axes to 100	NUM_PARAMS		3			31	03 13 64 00 00 00 14 64 00 00 00 15 64 00 00 00
	PARAM1_ID	RC_SPEED_ROLL	19				
	PARAM1_VALUE	100	100				
	PARAM2_ID	RC_SPEED_PITCH	20				
	PARAM2_VALUE	100	100				
	PARAM3_ID	RC_SPEED_YAW	21				
	PARAM3_VALUE	100	100				
Set the speed of follow mode control for all axes to 60	NUM_PARAMS		3			31	03 0D 3C 00 00 00 0E 3C 00 00 00 0F 3C 00 00 00
	PARAM1_ID	FOLLOW_SPEED_ROLL	13				
	PARAM1_VALUE	60	60				
	PARAM2_ID	FOLLOW_SPEED_PITCH	14				
	PARAM2_VALUE	60	60				
	PARAM3_ID	FOLLOW_SPEED_YAW	15				
	PARAM3_VALUE	60	60				
Set PID gains to 1.5 for all axes	NUM_PARAMS		3			31	03 2A 46 00 00 00 2B 46 00 00 00 2C 46 00 00 00
	PARAM1_ID	PID_GAIN_ROLL	42				
	PARAM1_VALUE	1,5	70				
	PARAM2_ID	PID_GAIN_PITCH	43				
	PARAM2_VALUE	1,5	70				

	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				