

3-Axis Slider Commands List



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Function	Command Character	Input Range
Report status	R	N/A
Set Step Mode	m	2, 4, 8, 16
Pan x degrees	р	float
Tilt x degrees	t	float
Toggle enable motors	е	N/a
Set maximum pan speed (deg/s)	S	float
Set maximum tilt speed (deg/s)	S	float
Invert pan direction	i	bool
Invert tilt direction	I	bool
Set pan hall effect offset (deg)	0	float
Set tilt hall effect offset (deg)	0	float
Set homing mode (0: No homing, 1: Slider, 2: Pan & Tilt, 3: All axis)	Н	0-3
Trigger camera shutter	С	N/A
Auto home the axis	A	N/A
Execute moves array	;	1-32767
Add current position to moves array	#	N/A
Step forward a position in the moves array	>	N/A
Step backward a position in the moves array	<	N/A
Move to the first position in the moves array	ſ	N/A
Move to the last position in the moves array	1	N/A
Edit the current position in the moves array with current position	E	N/A
Add a delay in the moves array (ms)	d	0-32767
Edit a delay at the current position in the moves array (ms)	D	0-32767
Clear all position in the moves array	C	N/A
Save the current settings in EEPROM	U	N/A
Start a panoramic-lapse	L	N/A
Set angle between pictures (deg)	b	float
Set delay between pictures (ms)	В	0-32767
Start a time lapse with x pictures	I	1-32767
Move slider x mm		float
Invert slider direction	X	bool
Set maximum slider speed (mm/s)	X	float
Auto Home the slider axis	Z	N/A
Calculate the intercept of the first 2 keyframes	T	N/A
Move between the 2 keyframes, keeping pointed at the intercept	@	0-32767
Toggle axis acceleration on/off		N/A
Pan acceleration increment delay (µs)	a	0-32767
	q	0-32767
Tilt acceleration increment delay (µs)	Q	
Slider acceleration increment delay (µs)	W	0-32767
Scale the speed of all keyframed movements	W	float

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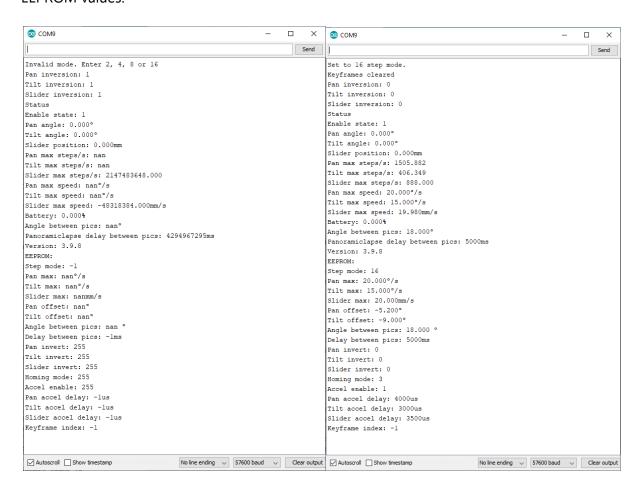
To use a function listed in the table you need to send the appropriate command over the serial connection to the Arduino. The serial connection can be over USB or Bluetooth as they both work the same. You can simply use the serial monitor provided in the Arduino IDE or one of many Android apps (I use Arduino Bluetooth controller by Giumig Apps). Bluetooth modules commonly have a default baud rate of 9600 which will need to be changed to 57600 to avoid any timing issues with the code.

Examples:

To get the pan tilt mount to print out its current status just send "R" (without quotes). To set the step mode to 16^{th} stepping move send: "m16" (without quotes). To move the pan axis -22.5 degrees send: "p-22.5" (without quotes).

Important:

When the code is first uploaded the EEPROM values will not have been properly set and will result in unusable values. You will need to set appropriate values then save them to the EEPROM (by sending he command character U). A restart may then be required. To see the current setting and stored EEPROM values send the command character R. The screenshots below show the settings and stored values before and after setting appropriate EEPROM values.



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