

## **Pan Tilt Mount Commands List**



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	Ι	
Function	Command	Input
	Character	Range
Report status	R	N/A
Set Step Mode	m	1, 2, 4, 8, 16
Pan x degrees	р	float
Tilt x degrees	t	float
Set current position to home (0)	h	N/A
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
Toggle auto homing on start-up	Н	N/A
Trigger camera shutter	С	N/A
Auto Home	Α	N/A
Run pan at x speed (deg/s)	k	float
Run tilt at x speed (deg/s)	K	float
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	Г	N/A
Move to the last position in the moves array	]	N/A
Edit the current position in the moves array with current position	Е	N/A
Add a delay to the current position in the moves array (ms)	D	0-32767
Clear all position in the moves array	С	N/A
Scale all pan speeds in the moves array to a new maximum (deg/s)	М	float
Scale all tilt speeds in the moves array to a new maximum (deg/s)	N	float
Save the current settings in EEPROM	U	N/A
Start a panoramic-lapse	L	N/A
Toggle axis limits	У	N/A
Set pan min limit (deg)	f	float
Set pan max limit (deg)	F	float
Set tilt min limit (deg)	g	float
Set tilt max limit (deg)	G	float
Set slider min limit (mm)	z	float
Set slider max limit (mm)	Z	float
Set angle between pictures (deg)	b	float
Set delay between pictures (ms)	В	0-32767
Start a time lapse with x pictures	ı	1-32767
Move slider x mm	X	float
Invert slider direction	i	bool
Set maximum slider speed (mm/s)	X	float

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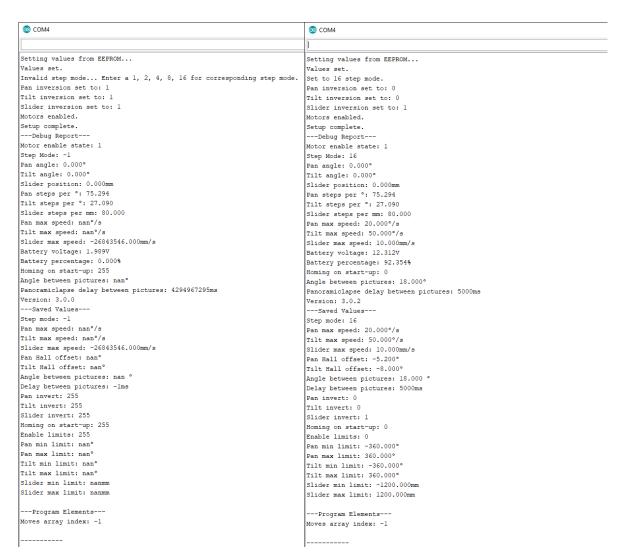
To use a function listed in the table you need to send the appropriate command over the serial connection to the Arduino. The serial connection can be over USB or Bluetooth as they both work the same. You can simply use the serial monitor provided in the Arduino IDE or one of many Android apps (I use Arduino bluetooth controller by Giumig Apps).

## **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<sup>th</sup> 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 setting and stored values before and after setting appropriate EEPROM values.



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