GRBL motion settings

Recommended GRBL parameters

Motion controller needs to know about actuator capabilities.

> Assume motor is connected to Y axis.

LSA1 pitch 0.635mm

GRBL parameter	Value	Definition
$101	10078.740158	Y steps/mm
$111	250.000	Y Max rate, mm/min
$121	40.000	Y Acceleration, mm/sec^2
$131	90.000	Y Max travel, mm

LSA1 pitch 1.27mm

GRBL parameter	Value	Definition
$101	5039.37008	Y steps/mm
$111	500.000	Y Max rate, mm/min
$121	50.000	Y Acceleration, mm/sec^2
$131	90.000	Y Max travel, mm

LSA1 pitch 6.35mm

GRBL parameter	Value	Definition
$101	1007.87402	Y steps/mm
$111	2500.000	Y Max rate, mm/min

$121	300.000	Y Acceleration, mm/sec^2
$131	90.000	Y Max travel, mm

Calculating steps/mm constant

Variable	Value	Definition
p	6.35	Lead screw pitch
s	200	Stepper motor steps per revolution
m	32	Microstepping

const = 1/(p*s*m)

Revision #5
Created 31 August 2020 13:10:06 by Saulius
Updated 3 October 2020 06:05:31 by Saulius