

# Command:CNTS (C)

MS2000 or RM2000 syntax

<b>Shortcut</b>	C
<b>Format</b>	CNTS [axis] = [encoder counts per mm]...
<b>Units</b>	Encoder counts per mm
<b>Remembered</b>	Using SS Z

Tiger syntax

<b>Shortcut</b>	C
<b>Format</b>	CNTS [axis] = [encoder counts per mm]...
<b>Units</b>	Encoder counts per mm
<b>Type</b>	Axis-Specific
<b>Remembered</b>	Using [addr#]SS Z

Changes axis' encoder counts per mm. For example, doubling this number would cause a given number of mm to be converted internally to twice as many encoder counts as before. A command to move the stage 2 mm would instead cause it to move 4 mm. **MOST USERS DO NOT NEED THIS FUNCTION!** If your stage is not moving as expected try making sure the leadscrew pitch is set appropriately with the [CUSTOMA](#) command.

$$\text{Cnts} = \frac{(6.5536 * 107)}{d}$$

where d is the total range of movement in microns. For example, if the range of movement is -100um to +100um, then d = 200, and Cnts = 327680.



**Note:** For a piezo device, always set **CNTS** first, then limits (**SL** and **SU**) afterward.

**Example:**

```
C X=13490.4
:A
C X?
:X=13490.4 A
```

Changes the encoder constant on the X-axis to 13490.4 counts/mm. The default values for this parameter are restored upon reset and should not require user modification.

[commands](#), [tiger](#), [ms2000](#)

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