

# Command:PCROS (PC)

Motorized Axis - Drift Error

MS2000 or RM2000 syntax

<b>Shortcut</b>	PC
<b>Format</b>	PCROS [Axis]=[units mm]...
<b>Units</b>	Millimeters
<b>Remembered</b>	Using SS Z

Tiger syntax

<b>Shortcut</b>	PC
<b>Format</b>	PCROS [Axis]=[units mm]...
<b>Units</b>	Millimeters
<b>Type</b>	Axis-Specific
<b>Remembered</b>	Using [addr#]SS Z

This command sets/displays the Finish Error setting, which controls when the motor algorithm routines will turn off. The setting controls the crossover position error (in millimeters) between the target and position at which the controller will stop attempting to move the stage closer to achieve the ideal position=target. This value also determines the maximum error allowable before a move is considered complete. This value is by default set to the value of the smallest move step size according to the encoder resolution, but many applications do not require such tight landing tolerance.

## Example setting

```
PC X=.00005 Y=.00002 Z=.00005
:A
```

Values equal to or less than zero are acknowledged by :A , but ignored.

The command in this example will make the controller consider a MOVE command complete when the difference between the target and the current position is 50 nm for X, 20 nm for Y, and 50 nm for Z.

## Example querying

```
PC X? Y?
:A X=0.001000 Y=0.001000
```

This shows how to query the finish error for X and Y; they have both previously been set to 1um.



**Warning!** If the **PCROS** value is extremely small, moves may take an excessively long time to complete. If this happens either increase the value or else work on [tuning the stage](#).

**Warning!** If you increase the value for **PCROS (PC)** then also increase the value for [drift error \(E\)](#) so that the **E** value is larger than **PC**. Otherwise an landing might initially be considered complete but then afterwards lead to drift correction moves.

## Tunable Lens

<b>Shortcut</b>	PC
<b>Format</b>	PCROS [Axis]= #####...
<b>Units</b>	Float
<b>Type</b>	Axis-Specific
<b>Remembered</b>	Automatically

On the Tunable Lens card this command gets and sets a different parameter. Tunable lens diopter changes with temperature, this change varies with current being applied to the lens. So we built a model equation to help us calculate this Diopter per Celsius change. PC command sets the constant in this model equation. [More info here](#)

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

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