

# How to use positioning with extended PDOs

In order to start a profile position using extended PDOs do the following steps:

## 1. Set the default motion parameters

Please set the parameters to a default or starting values, for example:

PDO parameter	Name	Unit	Value
Application.TargetPosition	Position target (mm)	INT	10
Application.target_speed	Profile speed (mm/sec)	INT	500
Application.acc_rate	Acceleration rate (m/sec <sup>2</sup> )	INT	1
Application.dec_rate	Deceleration rate (m/sec <sup>2</sup> )	INT	1

Please consider that the position is set in mm and acceleration and deceleration rates are set in m/sec<sup>2</sup>.

## 2. Set the Operating mode to Profile positioning mode

Set the command word to **13** (dec). The operating mode will change to Profile positioning mode.

## 3. Homing

Set the command word to **1** (dec). The motor executes homing procedure reaching the mechanical stops.

## 4. Start the motion

Set the command word to **10** (dec) to enable the motion profile. when the positioning is done reaching the target pos, the bit 12 of the status word is changing to 1 and to 0.  
If the command word remain fixed to 10, at every change of the target position value the motor follow the requested value.

Please note that, In order to stop the change of the position due to a new value, set the command word to 11 (dec) correspond to Stop motion,

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