

## Hudson PlateCrane XT



**Manufacturer:** Hudson Control Inc.  
**Model Number:** PlateCrane-XT  
**Web Address:** [www.hudsoncontrol.com](http://www.hudsoncontrol.com)

The PlateCrane XT is a cylindrical robotic arm that delivers labware to one or more devices. It provides a reliable, simple and elegant way to increase the automation capabilities of laboratories using any device or devices that utilize the microplate format.

### Robotic Arm: Commands

▶ **About( )** - Displays the Crane .OCX about dialog as a modal dialog box.

▶ **CloseGripper( )** - Closes the gripper.

▶ **Here( name )** - Stores the current position of the PlateCrane into the specified point.

name	String	Specifies the name of the point in which the PlateCrane current position is stored.
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▶ **Home( axis )** - Homes all the axes of the PlateCrane.

axis	String	Specifies the axis to home. "All" homes all the axes. "P" homes the P axis. "R" homes the R axis. "Y" homes the Y axis. "Z" homes the Z axis.
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▶ **Jog( axis, steps )** - Moves an axis by the specified number of steps.

axis	String	Specifies the axis to be moved. "P" moves the P axis. "R" moves the R axis. "Y" moves the Y axis. "Z" moves the Z axis.
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steps	Integer	Number of steps for the move.
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▶ **Limp( powerOn )** - Turns on or off the holding current for the R and Z axes, allowing the arm to be moved freely.

powerOn	Boolean	Turns on or off the holding current.
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▶ **Move( name )** - Moves the PlateCrane to the specified point. The PlateCrane will move to the R and P axis positions first, then move to the Z axis position.

name	String	Specifies the name of the point to where the PlateCrane is moved.
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▶ **Move\_P( name )** - Moves the PlateCrane P axis to the specified point. The PlateCrane will not move the R, Y or Z axes.

name	String	Specifies the name of the point to where the PlateCrane is moved.
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▶ **Move\_R( name )** - Moves the PlateCrane R axis to the specified point. The PlateCrane will not move the Y, Z or P axes.

name	String	Specifies the name of the point to where the PlateCrane is moved.
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▶ **Move\_Y( name )** - Moves the PlateCrane Y axis to the specified point. The PlateCrane will not move the R, Z or P axes.

name	String	Specifies the name of the point to where the PlateCrane is moved.
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▶ **Move\_Z( name )** - Moves the PlateCrane Z axis to the specified point. The PlateCrane will not move the R, Y or P axes.

name	String	Specifies the name of the point to where the PlateCrane is moved.
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▶ **SetPoint( source, destination )** - Copies the source point to the destination point.

source	String	Specifies the source point to be copied.
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destination	String	Specifies the destination point.
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▶ **ShiftPoint( name, rShift, zShift, pShift, yShift )** - Shifts the specified point by the number of steps specified in the shift values. This function will overwrite the original position.

name	String	Specifies the name of the point to be shifted.
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rShift	Integer	R axis shift value.
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zShift	Integer	Z axis shift value.
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pShift	Integer	P axis shift value.
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yShift	Integer	Y axis shift value.
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▶ **Speed( newSpeed )** - Sets the movements speed of the PlateCrane to the specified percentage.

newSpeed	Integer	Specifies the new speed for the PlateCrane. Range of values: <b>1</b> to <b>100</b> .
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▶ **OpenGripper( )** - Opens the gripper.

## Robotic Arm: Errors

 **PlateCraneError( alarmCode )** - Error occurred during command execution.

alarmCode	Integer	Error code: 1 - invalid command or parameter, 2 - invalid point name, 3 - maximum number of points exceeded, 4 - IMS communication transmit error, 5 - IMS communication response error, 6 - move command wasn't complete, 7 - home command wasn't complete, 8 - invalid target position, 9 - PlateCrane is not homed, 10 - R axis position is out of the dead-band limit, 11 - Z axis position is out of the dead-band limit, 12 - P axis position is out of the dead-band limit, 13 - invalid rotary option, 14 - plate present, 15 - motion halt, 16 - no plate in gripper, 17 - Y axis position is out of the dead-band limit.
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