| **CopleyControl Class Commands** | | | |
| --- | --- | --- | --- |
| Commands | Input Type | Output Type | **Description** |
| Init | DevVoid | DevVoid | inits the device |
| Move | DevVoid | DevVoid | triggers the motor to move. |
| WriteRead | DevString | DevString | writes a command and gets the result of this command from the motor controller. |
| State | DevVoid | State | if the motor is in motion, the State is “MOVING”;  if the motor is stationary, the State is “ON”;  if the motor is out of power, the State is “OFF”;  if the motor reaches the hardware limits, the State is “ALARM”; |
| Status | DevVoid | DevString | if the motor is in motion, the Status is “Status is MOVING”;  if the motor is stationary, the Status is “Status is ON”;  if the motor is out of power, the Status is “Status is OFF”;  if the motor reaches the positive hardware limit, the Status is “Positive limit switch Active”;  if the motor reaches the negative hardware limit, the Status is “Negative limit switch Active”; |
| ResetMotor | DevVoid | DevLong | resets the motor |
| StopMove | DevVoid | DevLong | stops a movement immediately. |
| MoveToCwLimit | DevVoid | DevLong | moves the motor until the CW limit is reached (positive step direction). Software limits are ignored. StopMove works. |
| MoveToCcwLimit | DevVoid | DevLong | moves the motor until the CCW limit is reached (negative step direction). Software limits are ignored. StopMove works. |
| MoveHome | DevVoid | DevLong | executes the encoder homing procedure |

| **CopleyControl Class Attributes** | | | | | |
| --- | --- | --- | --- | --- | --- |
| Attributes | **R/W type** |  | Data type | Value, Range, Unit | **Description** |
| Acceleration | READ\_WRITE | DevDouble | Units: 10 counts/s2 | the acceleration |
| Deceleration | READ\_WRITE | DevDouble | Units: 10 counts/s2 | the deceleration |
| DialPosition | READ\_WRITE | DevDouble | Units: Counts | the dial position |
| Position | READ\_WRITE | DevDouble | Units: Counts | the position |
| SetPoint | READ\_WRITE | DevDouble | Units: Counts | the set point for the movement |
| HomeOffset | READ\_WRITE | DevDouble | Units: Counts | the home offset |
| Velocity | READ\_WRITE | DevDouble | Units: 0.1 counts/s | the velocity |
| RealMaxVelocity | READ\_WRITE | DevDouble | Units: 0.1 counts/s | the real Max velocity |
| State | READ | State |  | device state.  if the motor is in motion, the State is “MOVING”;  if the motor is stationary, the State is “STANDBY”;  if the motor is out of power, the State is “OFF”; |
| Status | READ | DevString |  | device status.  if the motor is in motion, the State is “Status is MOVING”;  if the motor is stationary, the State is “Status is ON”;  if the motor is out of power, the State is “Status is OFF”; |
| CwLimit | READ |  | DevLong |  | Positive hardware limit |
| CcwLimit | READ |  | DevLong |  | Negative hardware limit |
| SoftwareCcwDialLimit | READ\_WRITE |  | DevDouble |  | Negative software dial limit |
| SoftwareCwDialLimit | READ\_WRITE |  | DevDouble |  | Positive software dial limit |
| SoftwareCcwLimit | READ\_WRITE |  | DevDouble |  | Negative software limit |
| SoftwareCwLimit | READ\_WRITE |  | DevDouble |  | Positive software limit |
| Conversion | READ\_WRITE |  | DevDouble |  | The ratio between the position and the dial position |