## Documentation: Single Motor with Linux Box in CST

Before we execute the steps, it is important to follow the below prerequisites:

1. Knowledge of basic Linux commands. Click here for the guide.
2. Knowledge of basic Linux HAL commands. Click here for the guide.
3. Basic Packages Installed. Refer to this guide.
4. Go through the motor manual. It can be found here.
5. Go through the basic XML and HAL file guide. It can be found here.

In this mode, the motor will move in a specified torque continuously.

**Step 1:** Download the HAL and the XML file. They can be found here. It is important to keep both the files in the same folder.

**Step 2:** Open terminal to type the commands (Qterminal is preferred). Go to the folder where your HAL and XML file is kept. Since my files are kept in CST1Motor folder inside Harsh folder insider Desktop folder, the command becomes:

cd Desktop/Harsh/CST1Motor

**Step 3:** Open 2 more terminals by going to File and selecting new. It is prudent to name every session by right clicking on the session name.
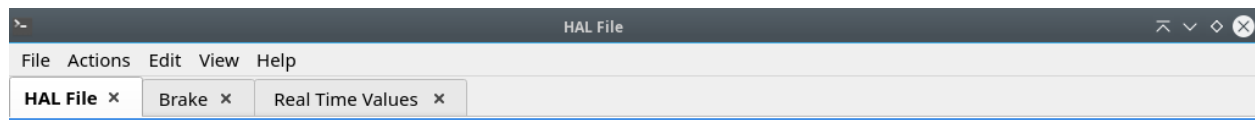


**Step 4:** On the first terminal, run the HAL file using the command:
halrun -I -f CST1Motor.hal

**Step 5:** On the second terminal write the commands:

ethercat download -p0 --type bool  0x4602 0 0
ethercat download -p0 --type bool  0x4602 0 1

This is to release the breaks.

**Step 6:** On the first terminal, type the following commands:

```
sets reset_all 1
sets reset_all 0
sets drv_en_0 1
sets drv_en_0 0
sets drv_en_0 1
setp lcec.0.0.torqcmd 100
```

The motor should start moving. Here 100 denotes the target torque which is per thousand of rates torque. To change the torque the torque value, the command is:

```
setp lcec.0.0.torqcmd torque_value
```