CCD Start Up

1. Turn on **power strip** at the base of the telescope (you should hear fans turn on – if not, power may need to be reset or wrong cord is plugged in)

2. Open **Slide Mirror** application (double click icon on Desktop)
   a. Click **Stow** to allow light to fall on CCD

3. Open **Filter Wheel** application (double click icon on Desktop)
   a. Click on filter you would like. You should hear the filter change.

4. In yellow **TCS window**, change **focus** to CCD focus (see focus tab)

5. Open MaximDL 5 (double click icon on Desktop)
   a. Click **View \→ Camera Control Window \→** Under **setup** tab
      i. To use **Imaging CCD ONLY**
         1. **Camera 1 \→ setup camera** is set to **Camera Model – Apogee USB/Net**
         2. **Camera 2 \→ setup camera** is set to **Camera Model - NONE**
      ii. To use **Imaging CCD AND external guider camera**
          1. **Camera 1 \→ setup camera** is set to **Camera Model – Apogee USB/Net**
          2. **Camera 2 \→ setup camera** is set to **Camera Model – SBIG Universal**
      iii. To use **Spectrograph**
          1. **Camera 1 \→ setup camera** is set to **Camera Model – SBIG Universal**
          2. **Camera 2 \→ setup camera** is set to **Camera Model - NONE**
   b. Click **Connect**
   c. Click **Coolers ON**
   d. If you want RA/DEC in header - Click **View \→ Observatory Control Window**
      i. Under **setup** tab \→ **Telescope** Click **connect** (close that window)
ii. In TCS → telescope → rates make sure RA rate is set to 15 and click apply

e. Under Expose tab, take images (see MaximDL help)

**CCD Shut Down**

1. In MaximDL, under CCD control window, click Cooler Off and then Disconnect

2. Close MaximDL

3. Turn off power strip

4. In Slide Mirror Application (on Desktop), click On Axis for viewing with the eyepiece

5. Return focus to appropriate focus for the eyepiece in the Telescope