For the newly made 5-DOF device, we have implemented gravity compensation, as well as a simple controller for force feedback and torque feedback that create virtual springs that center and straighten the stylus, respectively.

Pressing “g”, “f”, and “t” on the keyboard toggle on/off gravity compensation, force feedback, and torque feedback, respectively. You can turn on all effects together, or you can feel the effects individually.

When you run the code, two different windows will appear as shown below in Fig. 1. The window 1 as shown in Fig. 1 is for the 5-DOF Horizontal Configuration. Window 1 must be made the active window to toggle the effects (just click on window 1 to make it active window). Pressing the Esc key on the keyboard while window 1 is active will exit the code.

![Fig. 1]
For the single falcon, we have implemented gravity compensation and a simple force controller that behaves like a virtual spring centering the device.

Pressing “g” and “f” on the keyboard toggle on/off gravity compensation and force feedback, respectively. You can turn on both effects together, or you can feel the effects individually.

When you run the code, two different windows will appear as shown below in Fig. 2. The window 1 as shown in Fig. 2 is for the 3-DOF single Falcon. Window 1 must be made the active window to toggle the effects (just click on window 1 to make it active window). Pressing the Esc key on the keyboard while window 1 is active will exit the code.