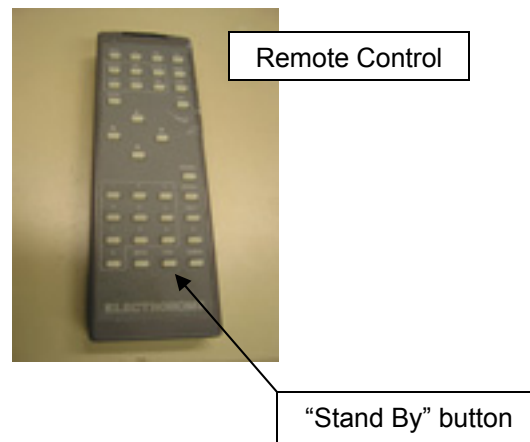
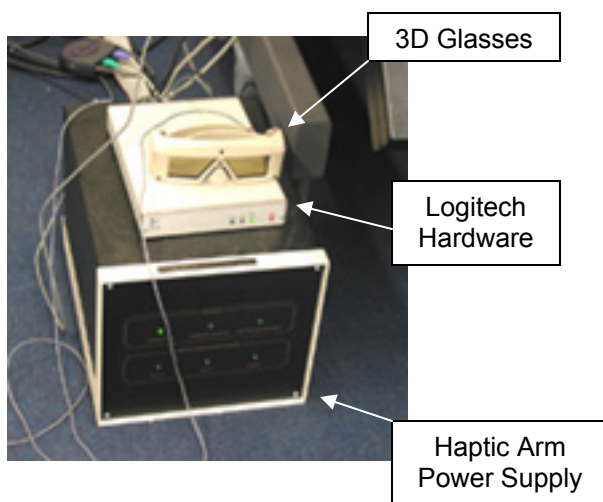
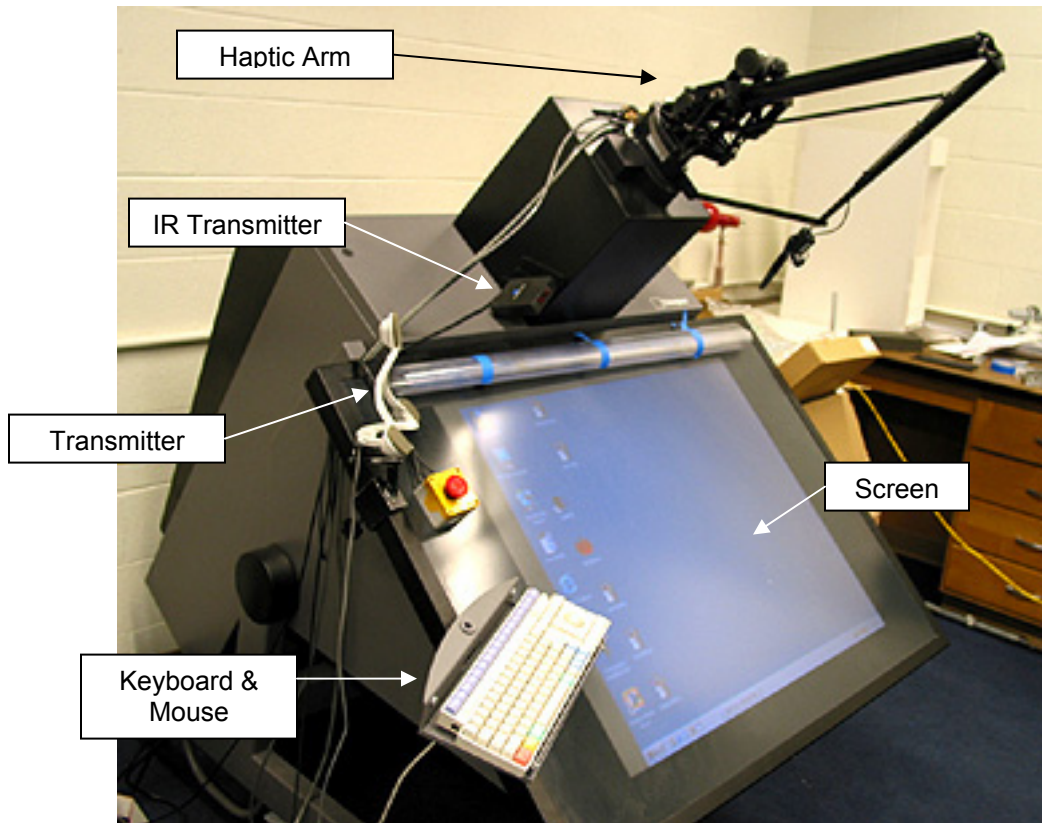


# Head Tracker Range Checking

## System Components



## Procedure

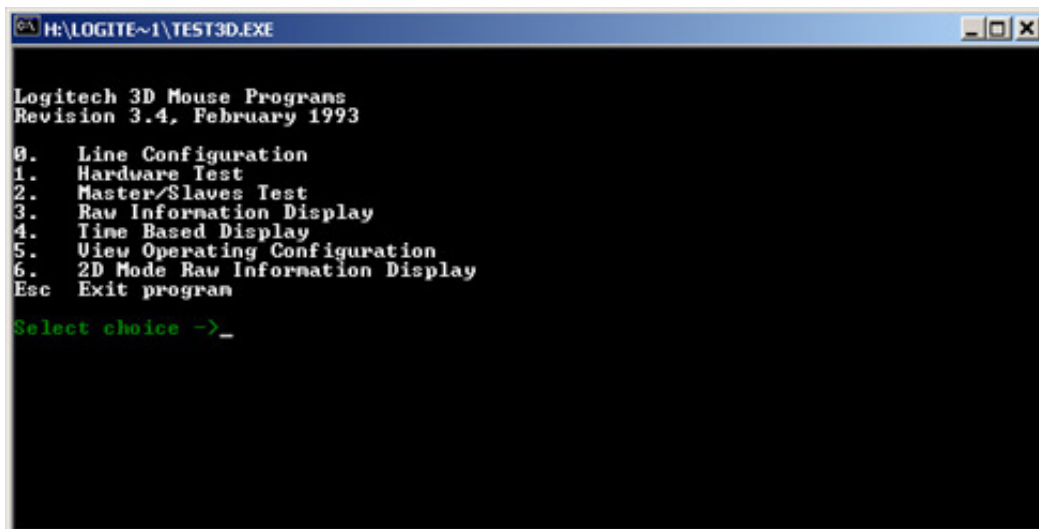
Note: The haptic arm will not be used. Therefore, the haptic arm's power supply does not need to be on. You can turn it off by switching the power button on the back of the power supply.

If the station's screen is off, point the remote control towards the screen and hold the *Stand By* button. The screen should turn on and show what the computer monitor is displaying.

If the Logitech hardware is off (red light off), turn it on by switching the power button to the ON position. It's located on the back, on the right side.

1. Connect the 3D glasses to the back of the Logitech hardware. The glasses are usually kept on the left side of the computer desk. You will probably find two pair of glasses; you will need the white ones with the wire.
2. After connecting the glasses, stand in front of the station's screen and make sure that:
  - Nothing is obstructing your view of the IR transmitter's red light.
  - You can reach the keyboard and mouse with your left hand.
  - The transmitter's face is pointed in your general direction.
3. At this point, do not put on the glasses. Open them slowly while looking through them. You will notice that when the glasses are closed, the lenses are clear. When you open them, the lenses darken.
4. Now for the rest of the procedure, you have two options. You can either put on the glasses, or you can hold them with your right hand. If you do the latter, you need to make sure the glasses are always open and at eye-level. We suggest you put them on at first, and as you get the hang of things, hold them with your right hand.
5. Go to *My Computer*, and go the *H* drive. Open the *logitech-pc* folder. Now double click on *TEST3D.exe*. The following figure will appear.

Note: If at any time the program closes or crashes, open the program again and perform step 6.



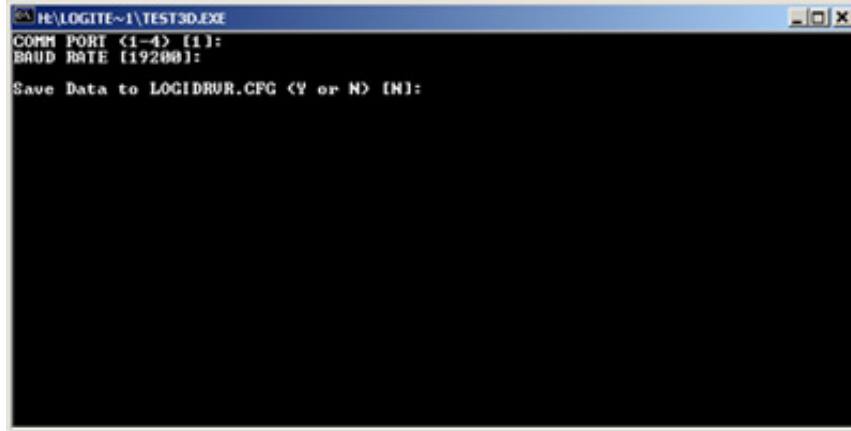
```
H:\LOGITE~1\TEST3D.EXE

Logitech 3D Mouse Programs
Revision 3.4, February 1993

0. Line Configuration
1. Hardware Test
2. Master/Slaves Test
3. Raw Information Display
4. Time Based Display
5. View Operating Configuration
6. 2D Mode Raw Information Display
Esc Exit program

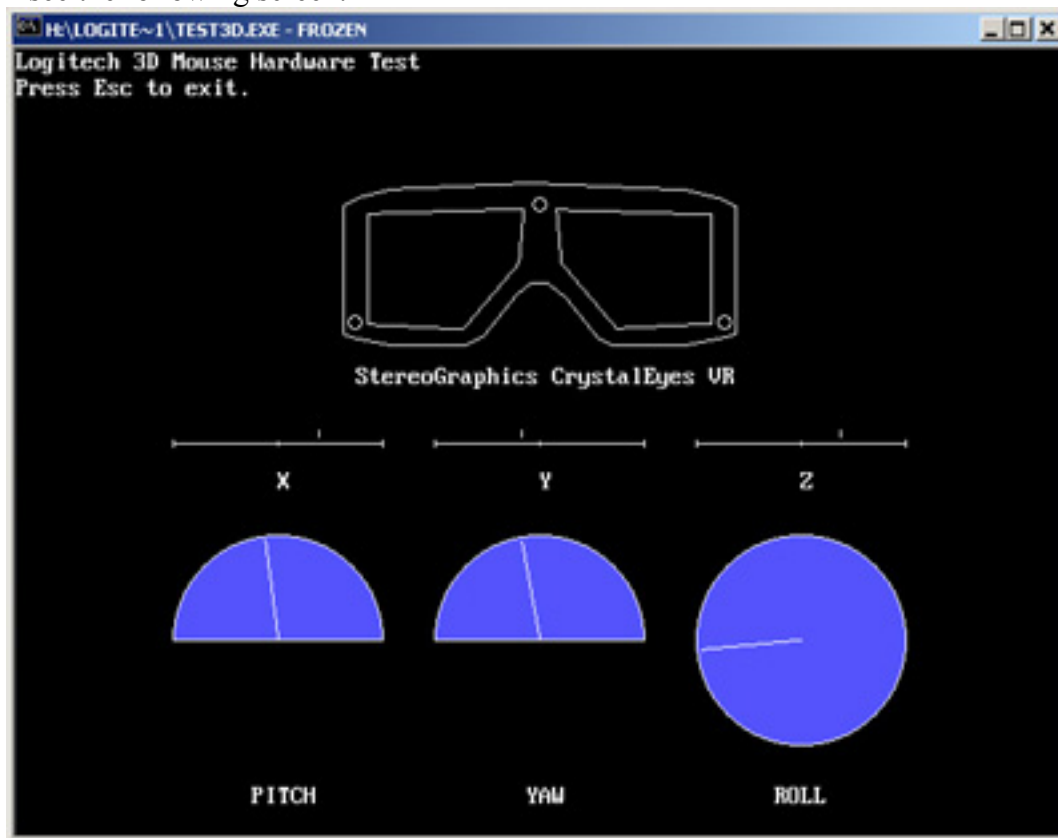
Select choice ->_
```

6. Choose the first option *Line Configuration* by pressing 0 (zero) on the keyboard.

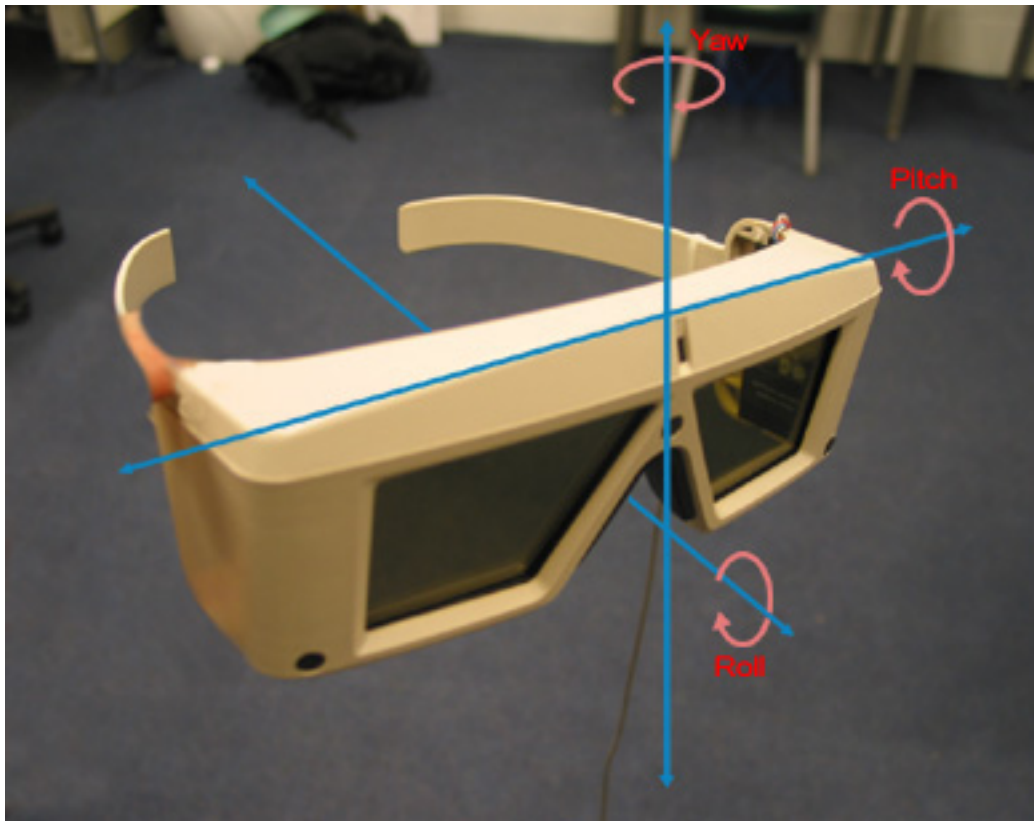


On *COMM PORT* type 2. On *BAUD RATE* type 19200. And for *Save Data...* type N.

7. Now that you are back to the main menu, choose *Hardware Test* by pressing 1. After a few seconds you will see the following screen.



This screen will give you qualitative measurements of the 3D glasses' position. The X, Y, Z bars correspond to the position of the glasses in 3D coordinate space. Pitch, yaw, and roll refer to the rotational position of the glasses.



Press *Esc* on the keyboard to go back to the main menu.

8. Now choose the *Raw Information Display* by pressing 3. After a few seconds you will get a screen with 7 columns that display real-time quantitative information. The first column shows the signal strength. 00 = good signal, 20 = no signal, and any other number means weak/loosing signal. The second, third, and fourth columns show the X, Y, Z coordinates. And the last three columns display pitch, yaw, and roll of the glasses.

As an exercise, try to find the 0, 0, 0 position. It should be pretty close the transmitter's face.

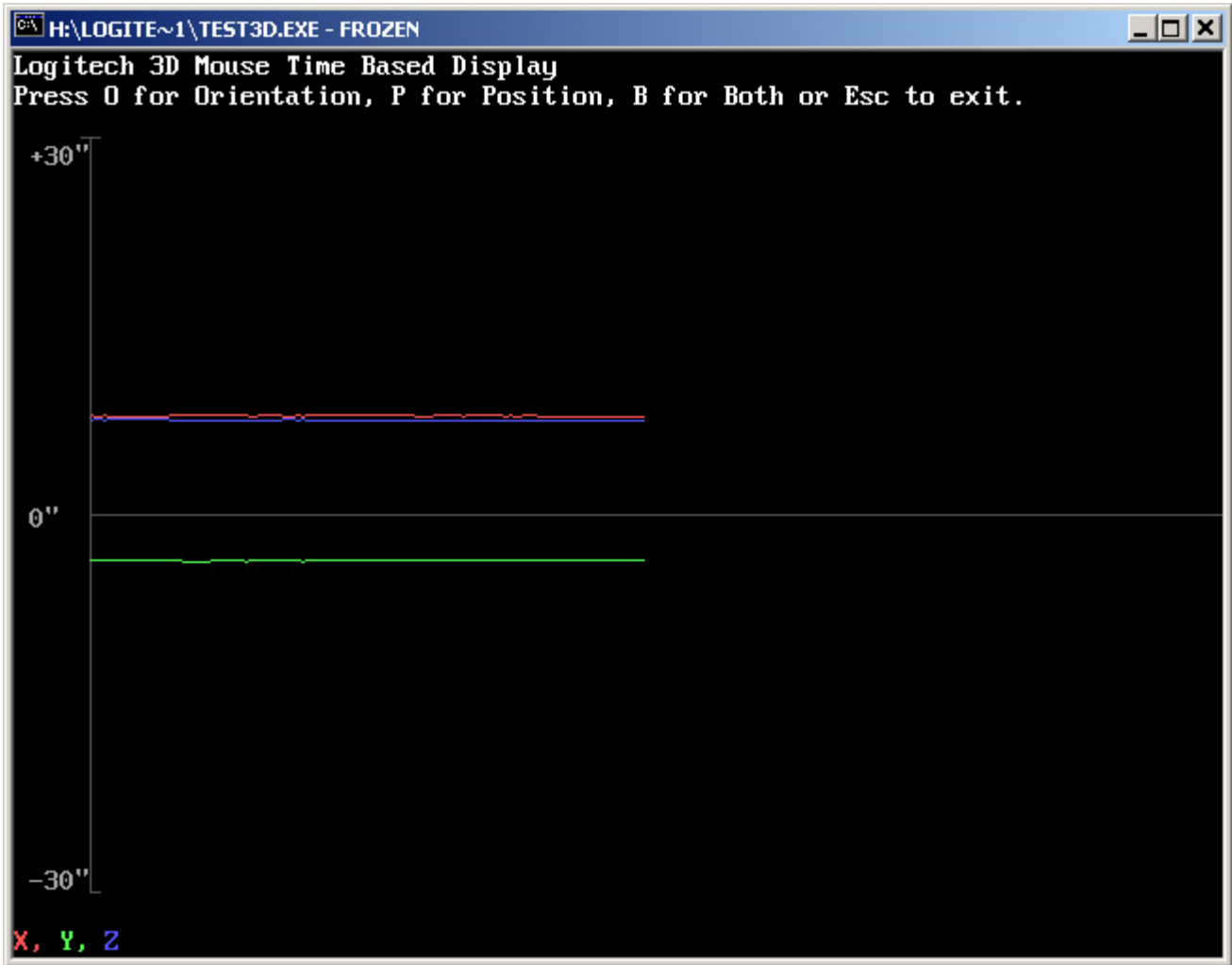
```

H:\LOGITE~1\TEST3D.EXE
B: 00 X: +7.960 Y: -3.720 Z: +7.650 P: 8.1 Y: 11.7 R: 96.0
B: 00 X: +7.960 Y: -3.720 Z: +7.650 P: 8.1 Y: 11.7 R: 96.0
B: 00 X: +7.960 Y: -3.720 Z: +7.650 P: 8.1 Y: 11.7 R: 96.0
B: 00 X: +7.960 Y: -3.700 Z: +7.650 P: 7.9 Y: 11.5 R: 96.0
B: 00 X: +7.960 Y: -3.700 Z: +7.650 P: 7.9 Y: 11.5 R: 96.0
B: 00 X: +7.960 Y: -3.700 Z: +7.650 P: 7.9 Y: 11.5 R: 96.0
B: 00 X: +7.950 Y: -3.720 Z: +7.650 P: 8.1 Y: 10.6 R: 95.9
B: 00 X: +7.950 Y: -3.720 Z: +7.650 P: 8.1 Y: 10.6 R: 95.9
B: 00 X: +7.950 Y: -3.720 Z: +7.650 P: 8.1 Y: 10.6 R: 95.9
B: 00 X: +7.950 Y: -3.720 Z: +7.650 P: 8.1 Y: 10.6 R: 95.9
B: 00 X: +7.950 Y: -3.720 Z: +7.650 P: 8.1 Y: 10.6 R: 95.9
B: 00 X: +7.950 Y: -3.720 Z: +7.650 P: 8.1 Y: 10.6 R: 95.9
B: 00 X: +7.950 Y: -3.720 Z: +7.650 P: 8.1 Y: 10.6 R: 95.9
B: 00 X: +7.950 Y: -3.720 Z: +7.650 P: 8.1 Y: 10.6 R: 95.9
B: 00 X: +7.950 Y: -3.720 Z: +7.650 P: 8.1 Y: 10.6 R: 95.9
B: 00 X: +7.950 Y: -3.720 Z: +7.650 P: 8.1 Y: 10.6 R: 95.9
B: 00 X: +7.950 Y: -3.720 Z: +7.650 P: 8.1 Y: 10.6 R: 95.9
B: 00 X: +7.950 Y: -3.720 Z: +7.650 P: 8.1 Y: 10.6 R: 95.9
B: 00 X: +7.950 Y: -3.720 Z: +7.650 P: 8.1 Y: 10.6 R: 95.9
B: 00 X: +7.950 Y: -3.720 Z: +7.650 P: 8.1 Y: 10.6 R: 95.9
B: 00 X: +7.950 Y: -3.720 Z: +7.650 P: 8.1 Y: 10.6 R: 95.9
B: 00 X: +7.950 Y: -3.720 Z: +7.650 P: 8.1 Y: 10.6 R: 95.9

```

Press *Esc* on the keyboard to go back to the main menu.

9. Now choose option *Time Based Display* by pressing 4. The following screen will appear.



The graph's independent axis (horizontal) represents time, and the dependent axis (vertical) shows distance.

By default it will start in the Position mode, so you will see three color lines each representing one coordinate (the color legend is always on the bottom of the screen)

You can switch to Orientation mode by pressing O. The screen will now show three color lines each representing an axis of rotation (pitch, yaw, and roll) for the glasses.

If you press B, both position and orientation modes will appear. So you will see 6 color lines (x, y, z, pitch, yaw, roll).

10. After you are done, you can press *Esc* to go back to the main menu. If you wish to exit the main menu, press *Esc* again.