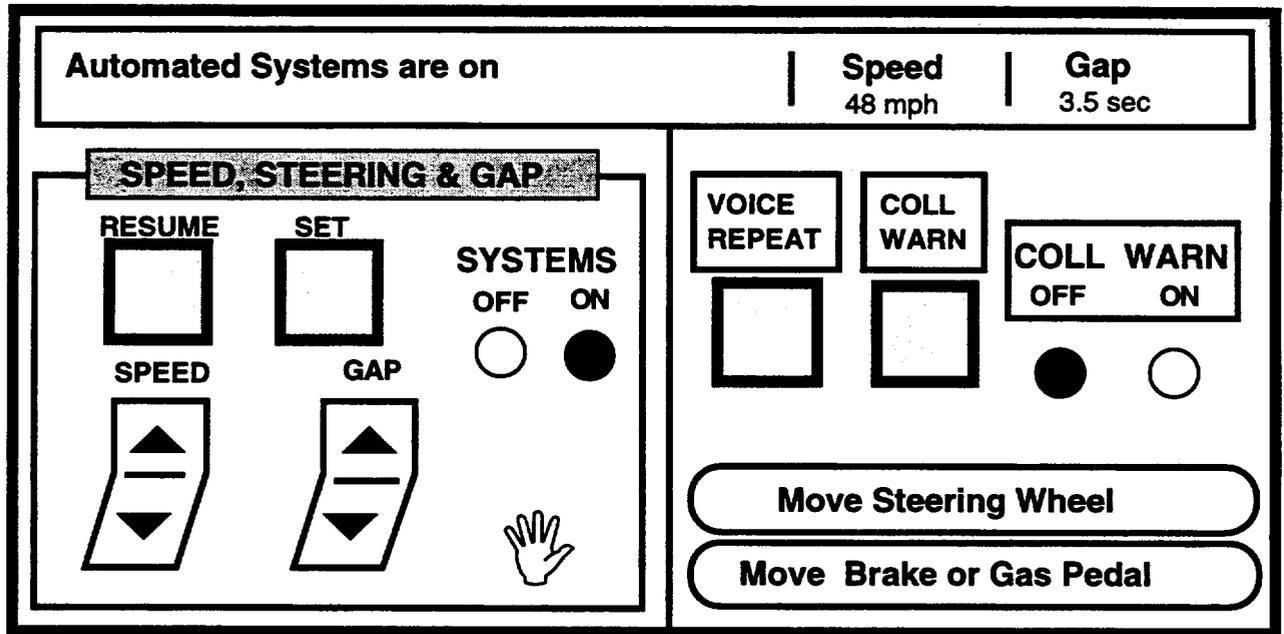


## APPENDIX 4: INTELLIGENT VEHICLE SYSTEM TRAINING DEVICE AND INSTRUCTIONS FOR TRAINING

The following instructions were given to each driver in the group who drove using the intelligent vehicle system in order to train them in the use of the system. When the instructions were given, each driver was shown a mock version of the device installed on a laptop computer. The interface for this mock device is shown in figure 54.



 Represented the mouse

Figure 54. Interface for the laptop version of the intelligent vehicle system, used to train drivers.

### INSTRUCTIONS FOR TRAINING THE INTELLIGENT VEHICLE SYSTEM GROUP OF DRIVERS

EXPERIMENTER:

Now, I'd like you to practice using the Speed, Steering, and Gap Control System. Use the computer on your right. When you are driving you will be able to press the keys on the system directly.

Now you should move the mouse over to the keys and click on them.

The *Speed*, *Steering*, and *Gap* controls are to the left of the control panel.

To start the system, move to the *Set* key—and click on it.

You will see the *Systems on* indicator is lit

And, in the dialogue box to the left there is a message saying the automated systems are on.

To the right you can see an example of what your current speed and gap might be.

To change the speed setting, you can press the rocker switch marked *Speed*.

To increase the speed setting, click on the arrow pointing upward.

To decrease the speed setting, click on the arrow pointing downward.

The speed setting shows the speed that you would like to travel at.

—Remember, the speed that you are actually traveling at is given by the speedometer.

To change the gap, move to the rocker switch to the right.

You can reduce the gap setting by clicking on the arrow pointing upward.

You can increase the gap setting by clicking on the arrow pointing downward.

Do you have any questions?

[If the driver says he/she doesn't know what gap to set, and asks for a recommendation, you can say:

“The Iowa State Patrol recommends that when drivers are driving manually, they should keep 2 seconds behind the vehicle ahead.”]

When the *Speed*, *Steering*, and *Gap Control System* is on, your speed will be controlled by the speed setting—that is, the system will try to take you along at the speed you set—until the distance to the vehicle ahead is the same as the gap setting.

Then the vehicle will slow down and maintain the gap.

To turn off the *Speed*, *Steering*, and *Gap Control System*, you press the brake or accelerator pedal or move the steering wheel.

You can do that now by clicking on one of them now.

If you do one of these, you will regain control of the speed and the steering, and you will hear the message that you see now in the dialogue box.

To listen to the message again, press the *Voice Repeat* key.

To re-engage the Speed, Steering, and Gap Control System and keep the same speed and gap settings that you had before, you must press the *Resume* key.

You can operate the Collision Warning System by using the controls on the right of the control panel.

Click on the *Collision Warning* key.

The system will be activated and the *Collision Warning* indicator will be lit.

When the Collision Warning System is on, if you are approaching the vehicle ahead so rapidly that you are in danger of colliding with it, the accelerator pedal will automatically push up against your foot.

If you feel the accelerator pedal pushing against your foot, you should be prepared to use the brake to slow down.

Remember, it is a warning system, it will not slow your car down, you have to do that.

To turn off the Collision Warning System, you should press the *Collision Warning* key.

If both systems are on, the Speed, Steering, and Gap Control System will stop you from getting too close to the car ahead.

Please switch on the Speed, Steering, and Gap Control System.

Please change the speed.

Please change the gap.

Please switch off the Speed, Steering, and Gap Control System.

Please switch on the Collision Warning System.

Please switch off the Collision Warning System.