# TTS Log-Box Data Logger

Data loggers can support scientific enquiry in your school. Students can obtain systematic and accurate measurements and use ICT to analyse and display data.

Using the Data Logger

The TTS Log-Box set contains a data logger, a thermometer, a heart rate sensor (which can be attached to a finger) a power lead, a VGA cable (for displaying data) and a USB cable (for transfering data onto a computer).

The Log-box also features a built-in thermometer, light sensor and sound sensor.
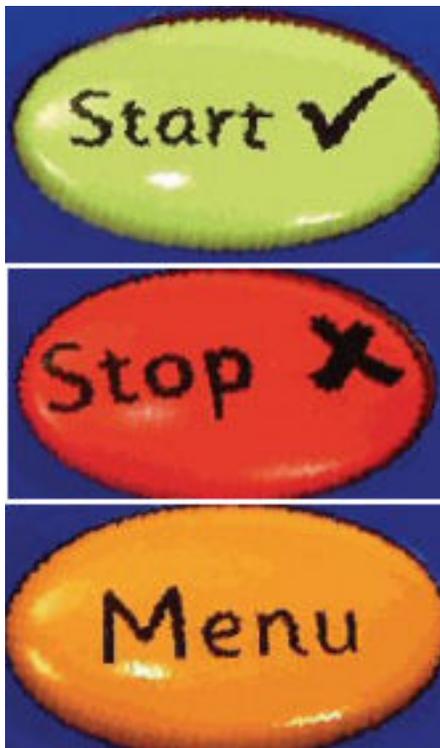
The controls are very simple and feature three buttons: 'Start', 'Stop' and 'Menu'.

The first two are used to begin and end logging sensory information, and also to select certain options within the menu screens.

The menu button allows you to move between the five display screens.

In the third menu screen you can select a recording type; normal or snapshot.

Normal recording mode will set the Log-box to start taking frequent recordings, but over time the recordings will become less frequent until, after 49 days, it will stop.

Snapshot recording mode will only make sensor recordings when you press the 'Start' button. You can take up to 250 snapshots before having to start a new file.

Once you have finished recording you will be asked whether you'd like to save it. If so, press the 'Tick' button.

Using the Software

Open the Data Logger software on a laptop. You can download this free software from the TTS website.

 Connect the datalogger to the laptop and open 'Datadisc'.

Choose the file you would like to view by clicking 'File' and 'Transfer', then click 'Transfer file'.

Your data is now available to view and analyse.

In your classroom

Why not:

1. Ask students to take sound readings from each classroom in the school to see which is the noisiest.

2. Ask students to take temperature and light readings from different rooms in the school to find out where plants would best grow.

3. Attach a large paper sail to a toy car and roll it down a ramp. Place the data logger at the bottom of the ramp opposite a torch or lamp. Measure the speed of the car by looking at the graph to see how long the light level dips as the sail passes between the torch and the data logger, thus interrupting the flow of light. Be careful this can be quite tricky to get right.