

Student Activity 15: Fun with the Data Logger

The Data Logger Backpack sits on top of Tuff-Bot and records information about the environment.

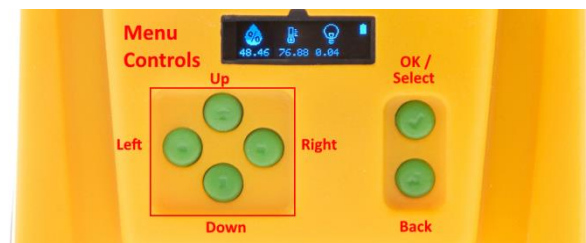
Turn on the Data Logger using its Power Switch.

What is the current temperature? The number is displayed below the icon for the thermometer.



What scale is used for temperature? Is it Celcius, where water freezes at 0° and boils at 100°? Or is it Fahrenheit, where the freezing point is 32° and the boiling point is 212°? You can change the scale in Settings, but your teacher has probably already set it up for you.

Place the Data Logger on top of Tuff-Bot. Use the green buttons to select menu options.



First set a save location, where your data will be stored. The save locations are labeled A–G. To do this, press the down arrow to get to ‘Select Save Location.’ Then press the green check mark (OK). Press OK again to select A. If that location is full, use the down arrow to select a different location and press OK. Now you will be at the main menu. Press the up arrow to get to ‘Start Logging’ and press OK to start recording.

Code Tuff-Bot as usual to send it on its journey. The data will automatically be recorded.

What do you think the data will show if you send Tuff-Bot to a shady area and then to a sunny area? (You may want to add pauses in your code so the sensors have more time to adjust to the new environment.)

Does the temperature change? Does the brightness change? Try to keep track of where you sent Tuff-Bot so that you can look at the data and see when certain events happened.

Your teacher can help you download data into a spreadsheet.