Lesson: LCD Introduction (Hello World)

Big Picture

This lesson will introduce students to the LCD screen. The students will create a program that will display "Hello World!" blinking onto the LCD screen.

Objectives

Students will be able to:

- Define LCD
- Define Flowchart

Alabama Standards Alignment

6th grade: Computational Thinker #4 and #8

7th grade: Computational Thinker #5, #7, and #8

8th grade: Computational Thinker #7

Preparation

Choose a presentation method:

- Instructor can walk the students through using the student tutorial handout.
- Students can work at their own pace using the tutorial handout. You may also post the video and tutorial locally and allow students to choose.

Materials Required

Each student (or pair of students) requires:

- RGB LCD Screen
- Micro:bit Breakout board (Edge I/O Adapter)
- Breadboard
- Flexible Qwiic cable

Vocabulary and Concepts

- LCD (Liquid Crystal Display): A type of flat panel display that can let light go through it, or can block the light.

-   Flowchart: A way of representing the step-by-step process (algorithm) of your program.

Teaching Guide

Getting started (10 mins)

Tell the class that they will create a micro:bit program to display "Hello World!" on a LCD screen today. Before they start programming, everyone needs to learn the new vocabulary terms.

Activity (40 mins)

The class is now ready to create their micro:bit with the sensor. Use your chosen method to demonstrate how to complete the activity. Make sure students are getting the message to show up on the screen correctly.

Wrap Up (5 mins)

Review the 2 vocabulary words.

LCD (Liquid Crystal Display): A type of flat panel display that can let light go through it, or can block the light.

Flowchart: A way of representing the step-by-step process (algorithm) of your program.