

Getting Started With JavaScript Blocks: Magic Button

Magic Button

Overview

The final project uses the micro:bit's compass to detect the presence of a magnet.

Step by step

A step by step guide is given at <https://pxt.microbit.org/projects/magic-button-trick>

.hex File

Final version of the .hex file called "11 Magic Button.hex"

POS Reference

Designs simple algorithms using loops, and selection i.e. if statements. (AL)

Declares and assigns variables. (AB)

Uses a variable and relational operators within a loop to govern termination. (AL) (GE)

Uses logical reasoning to predict outcomes. (AL)

Detects and corrects errors i.e. debugging, in algorithms. (AL)

Creates programs that implement algorithms to achieve given goals. (AL)

Understands that programming bridges the gap between algorithmic solutions and computers.(AB)

Uses nested selection statements. (AL)

I can statements

The students can:

- Use a the compass to detect a magnetic field

Challenges

A number of challenges could be based upon this basic task.

- Add an animation when above a certain magnetic force strength
- A live read out option when "A+B" buttons pressed.

