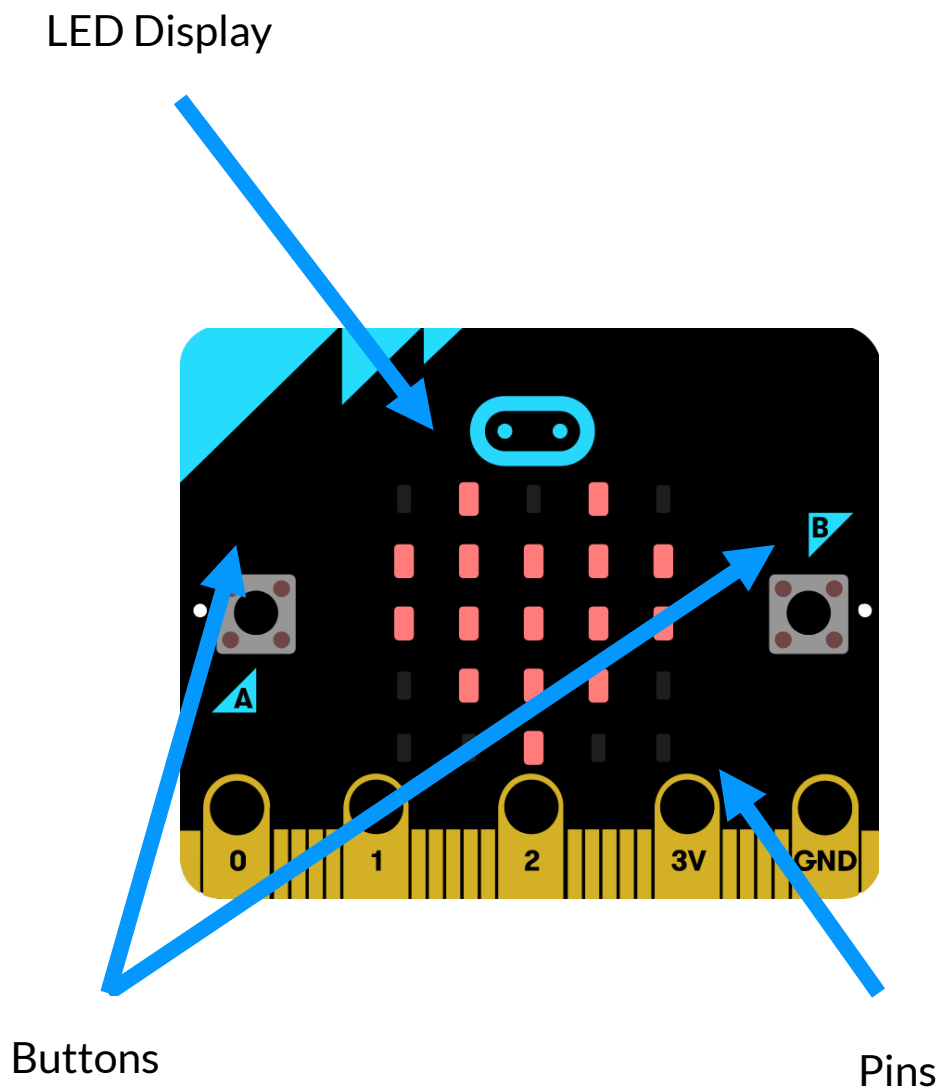
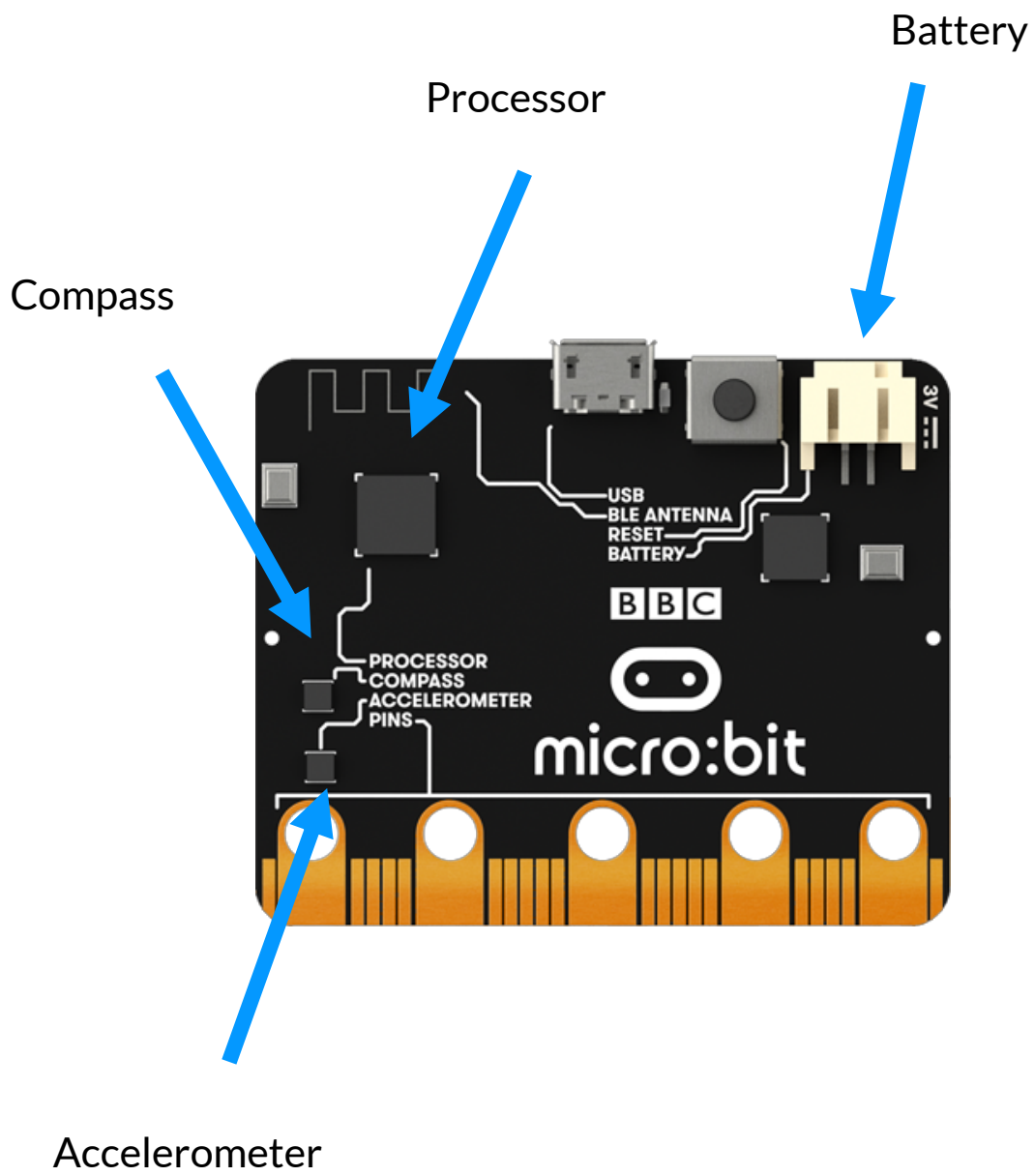


Solutions

Marty and the Micro:Bit

LESSON 1.19

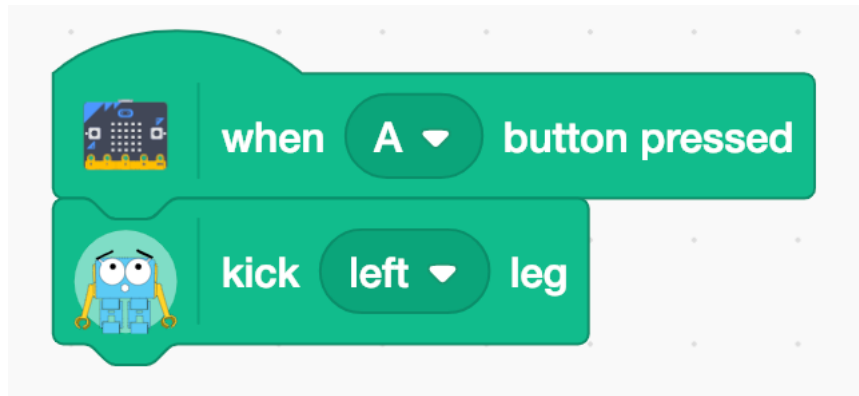




Fill in the blanks activity,

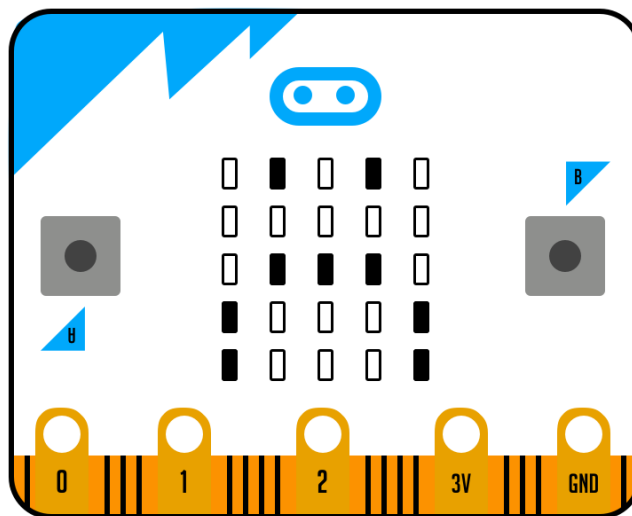
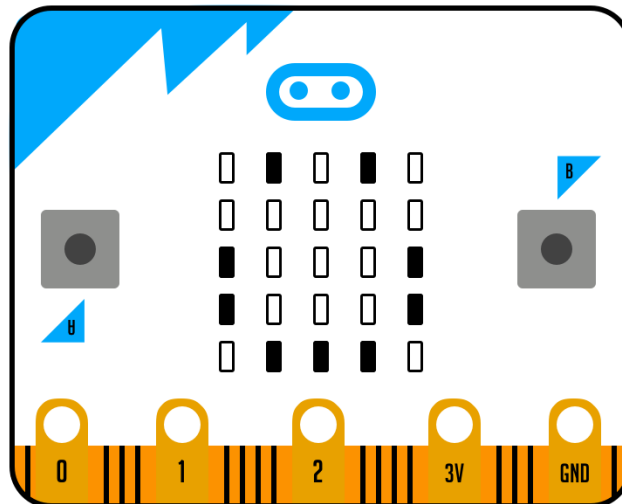
The Micro:Bit is a **micro-controller** that is like a small **computer**. It has many sensors including an **accelerometer** that can detect when the device is being moved around.

Here is an example of an answer to the bingo game,

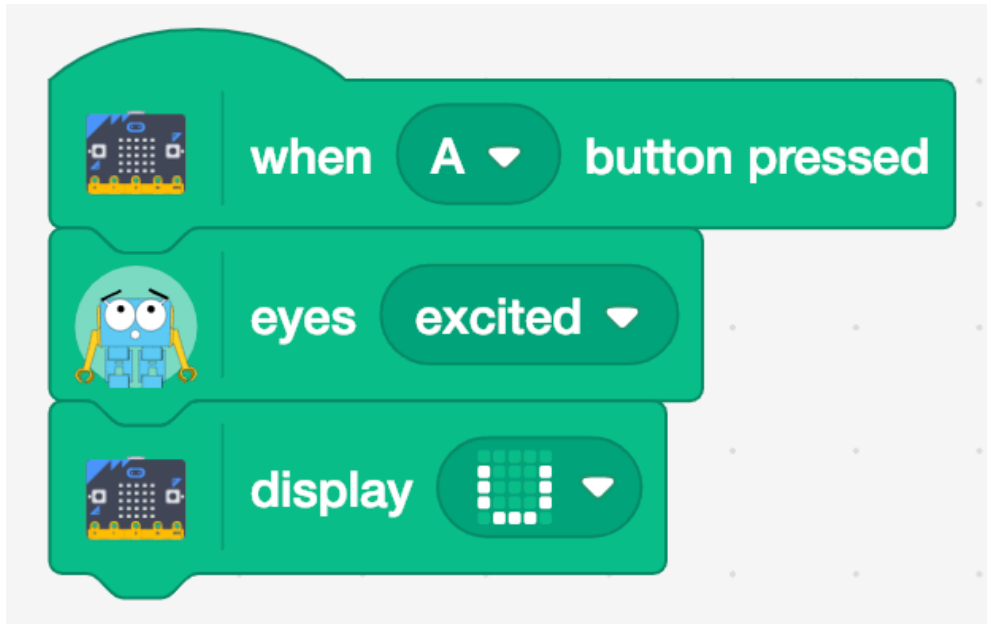


LESSON 1.20

Examples of shading in the Micro:Bit diagrams in student workbooks to recreate different emotions,

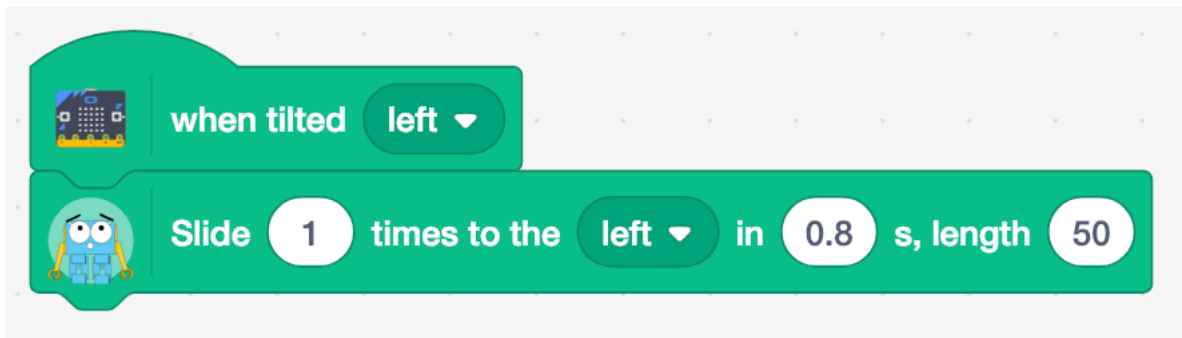
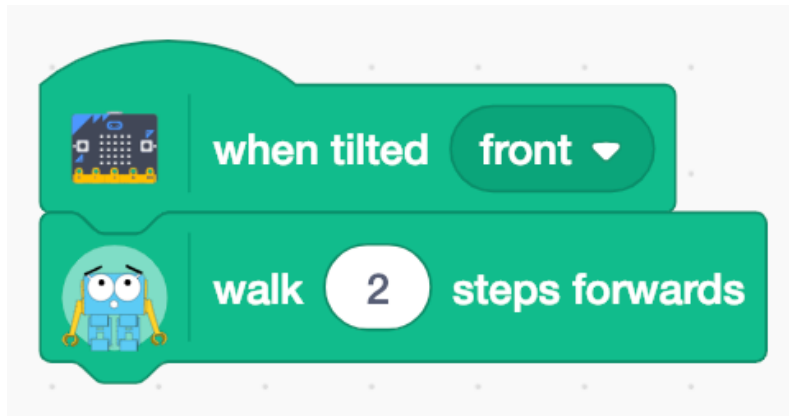


When it comes to programming using Marty as well, we will be using the Micro:Bit LED display as Marty's mouth. Here is an example of showing happiness using both Marty & Micro:Bit,



LESSON 1.21

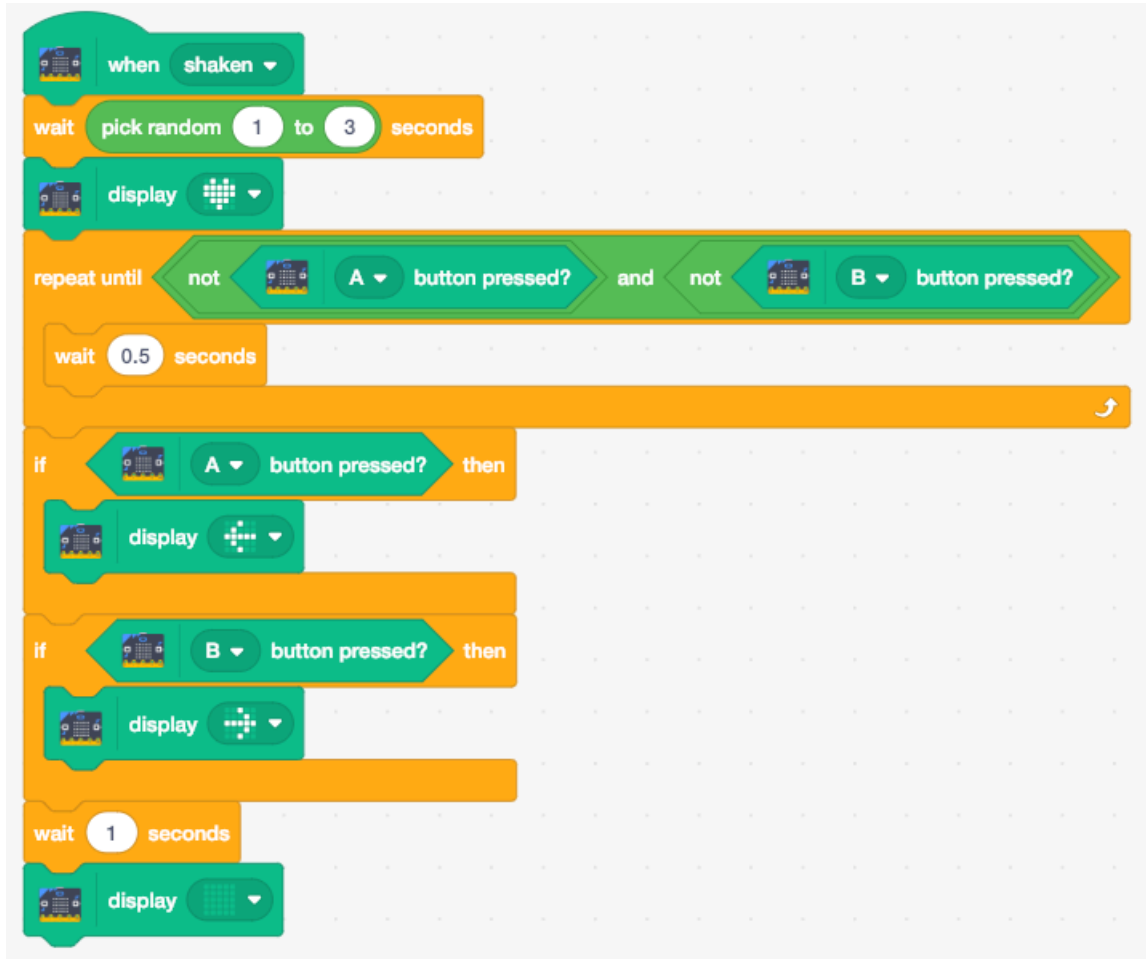
Here are some examples of different movements/actions we can program Marty to do with different gestures of the Micro:Bit,



Note: it is up to each student group how they want their Micro:Bit and Marty to link!

LESSON 1.22

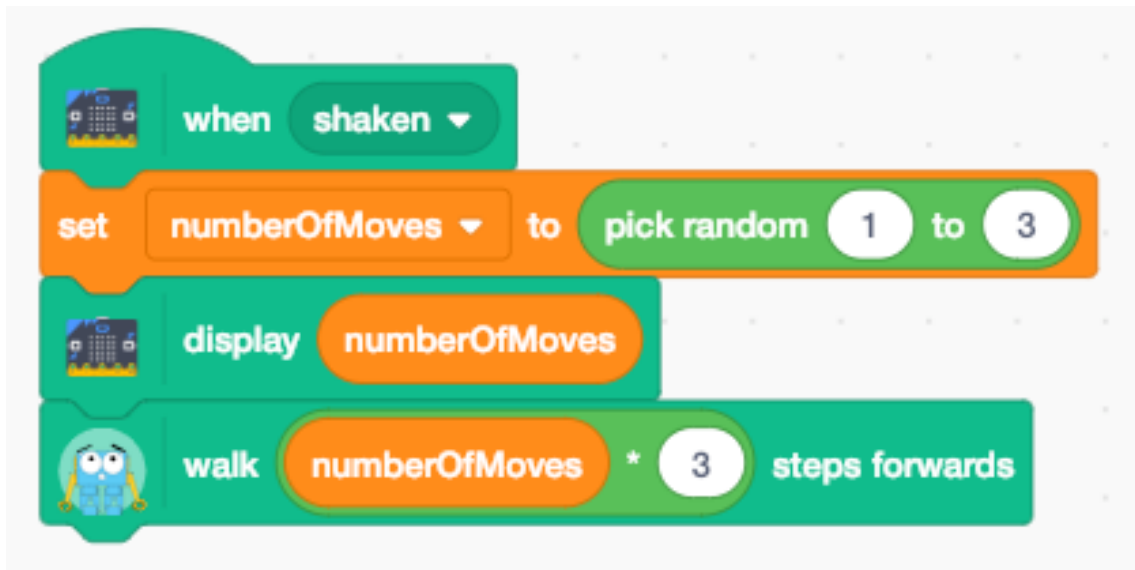
The reaction game code (without Marty movements)



Students would then add in the appropriate number of steps either forwards or backwards (or sidesteps depending on how they decide to set things up) based on who has won! This may require a trial and error to decide how many Marty steps it takes to move from one square to another!

LESSON 1.23

Dice program for the Micro:Bit,



Note: students will need to multiply the number that has been rolled so that each step that Marty takes, he lands on a new square on the board (students will need to test this out!)

Students will also need to consider what happens when they land on a snake or a ladder. For example, if they land on a ladder then they could simply shake again. Otherwise, they could click button A to do a negative roll like the example below,

