STEM - Smart Robot v2 - Altronics Z6454

Lesson 1.0 - Passive Buzzer Control

Scan QR code for Lesson 1.0 Simulation

Simulation of this lesson can be found at https://makecode.microbit.org/18429-56003-51155-13829
Note: *(Robot construction must be completed before this Step)*

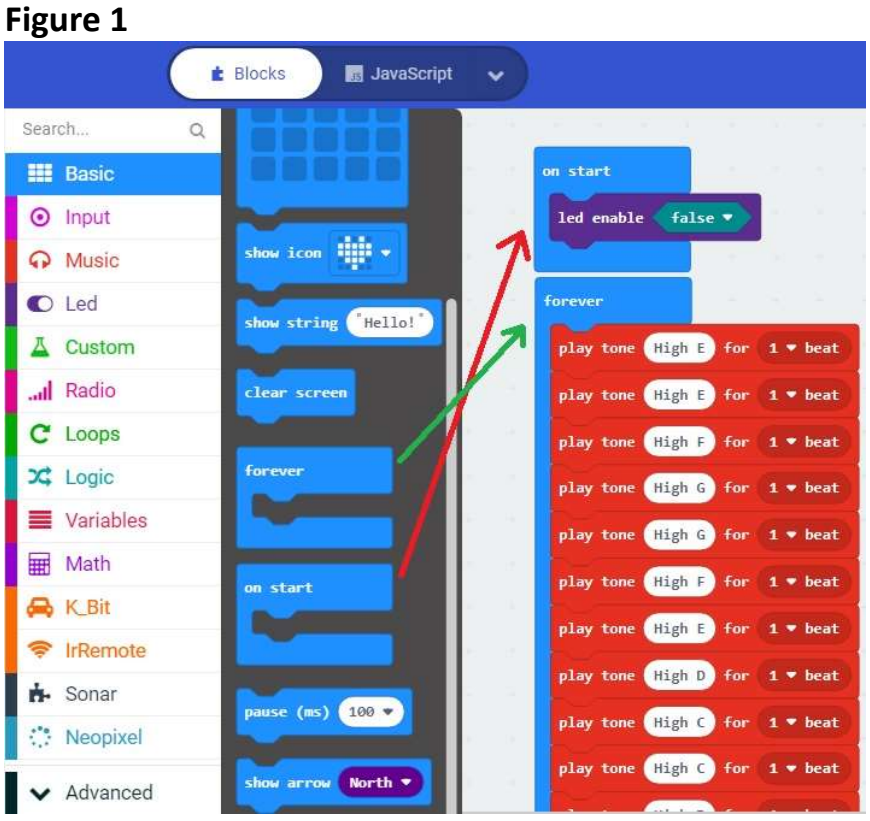
Goal for this lesson
Learn to control the buzzer on the micro:bit, basic **"blocks"** coding & variable manipulation.

Hardware Required
PC or Tablet
1 x micro USB cable
1 x Smart Robot and micro:bit board

Step 1 *As per Figure 1*

a. Goto URL https://makecode.microbit.org/#
b. Create **"+New Project"** & give it a name
c. Press **Gear** symbol – top right
d. Press Extensions
e. Add repository found using link below.
https://github.com/AltronicsAUKits/Z6454-Robot-Kit-v2_KS0426
f. Press **"Basic"** Tab
g. Drag **"on start"** into your work space **"on the right hand side"**
h. Drag **"forever"** into work space

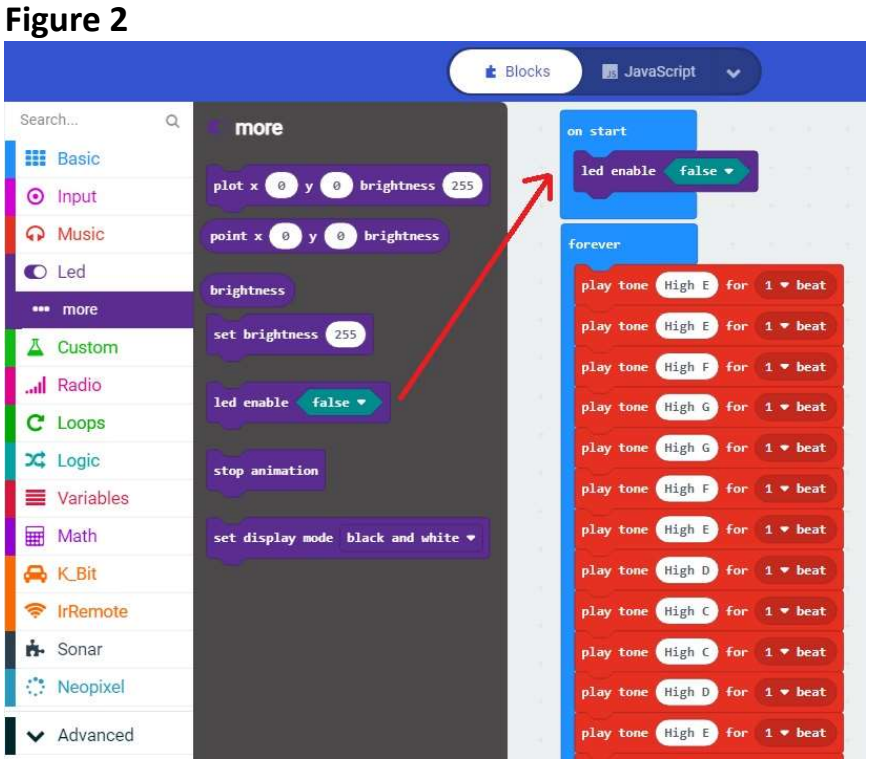
Figure 1



Step 2 *As per Figure 2*

a. Press **"… more"** Tab – below the Led tab
b. Drag **"led enable** false" into the **"on start"** field, ensure the variable is set to **"false"**

Figure 2



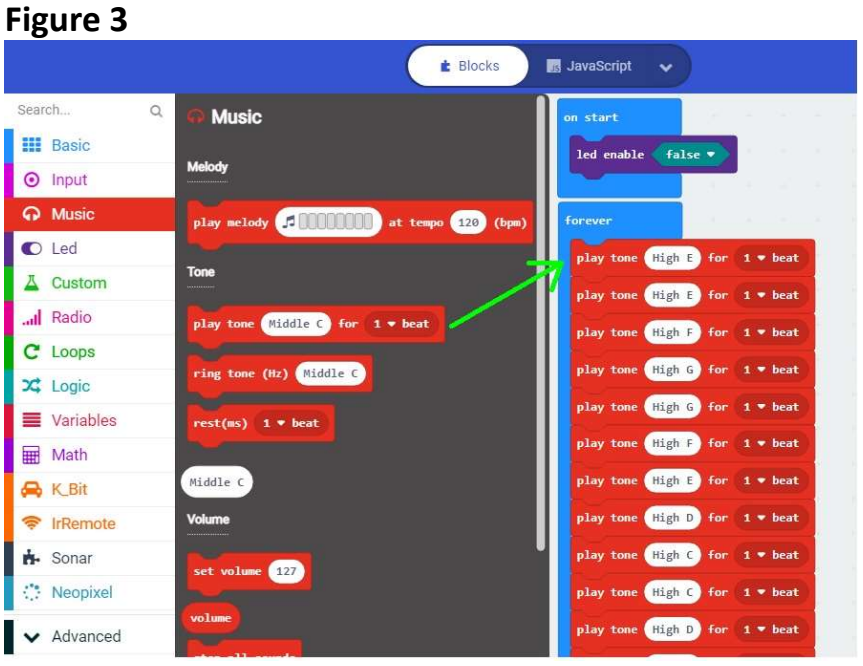
Step 3 *As per Figure 3*

a. Press **"Music"** Tab
b. Drag **"play tone Middle C for 1 beat"** into **"forever"** field
c. Now in the work space press on **"Middle C"** and choose a different tone as below.

d. Now press on **"1 beat"** and choose the length of the beat as below.

e. Repeat **Step 3** and add additional tones to generate a tune.
f. Download the code to the micro:bit.

Figure 3



Example tune can be found at.
https://makecode.microbit.org/18429-56003-51155-13829

STEM Smart Robot can be purchase from Altronics.
https://www.altronics.com.au/p/z6454-stem-microbit-mini-smart-robot-car-v2.0/

ALTRONICS
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