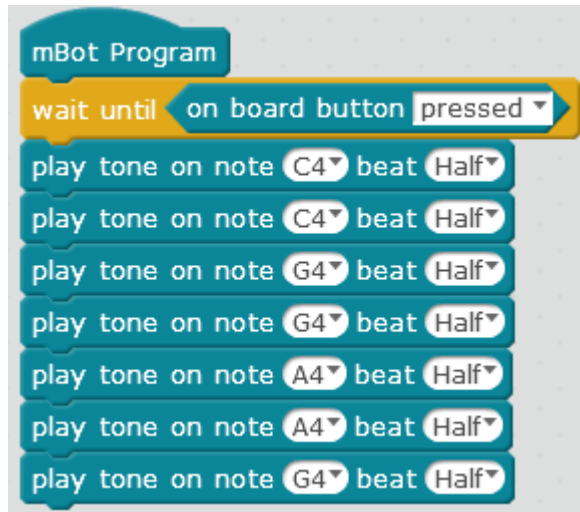# makeblock

Play a piece of music

Hardware requirements: mBot/mCore Control Panel
Implementation: Upload the program to Arduino

Example programs

Script description

	This block indicates that if ⬡ is triggered, the following block scripts will be executed; if Event ⬡ is not triggered, the following block scripts will not be executed. In this example the following scripts are triggered when th onboard button is pressed.
	Define the tone and rhythms of the buzzer.

Knowledge points

Point 1 Play the tone block
There are two drop-down menus in

block defining tone and rhythm respectively.
1) C/D/E/F/G/A/B in the tone menu define the name of the tone, mapping to
Do/Re/Mi/Fa/So/La/Ti of C major. The number behind a tone stands for different
pitches, C4 for standard middle C, and C5 for higher octave and C3 for low octave.
2） one second/one eighth/full/double length in beat menu are length, full length
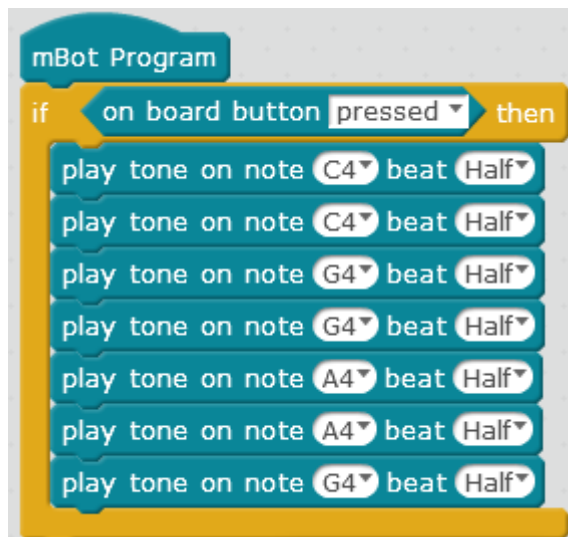for 1 and its one second is 0.5, and its double is 2 seconds, and so on.

musical alphabet	solfège	numbered musical notation
C	DO	1
D	RE	2
E	MI	3
F	FA	4
G	SO	5
A	LA	6
B	TI	7

Pitch name table

Point 2 Can I use `if ⬡ then` **instead of** `wait until ⬡` **?**

No. If you rewrite the script as shown in the following figure and you use "If" and "then", the program will quickly determine whether the on-board button is pressed; if not, it will proceed automatically without waiting until the condition is true. So you cannot achieve the example effects when you make the replacement. To achieve the example effects, you need to coat `if ⬡ then` with `wait until ⬡` block.

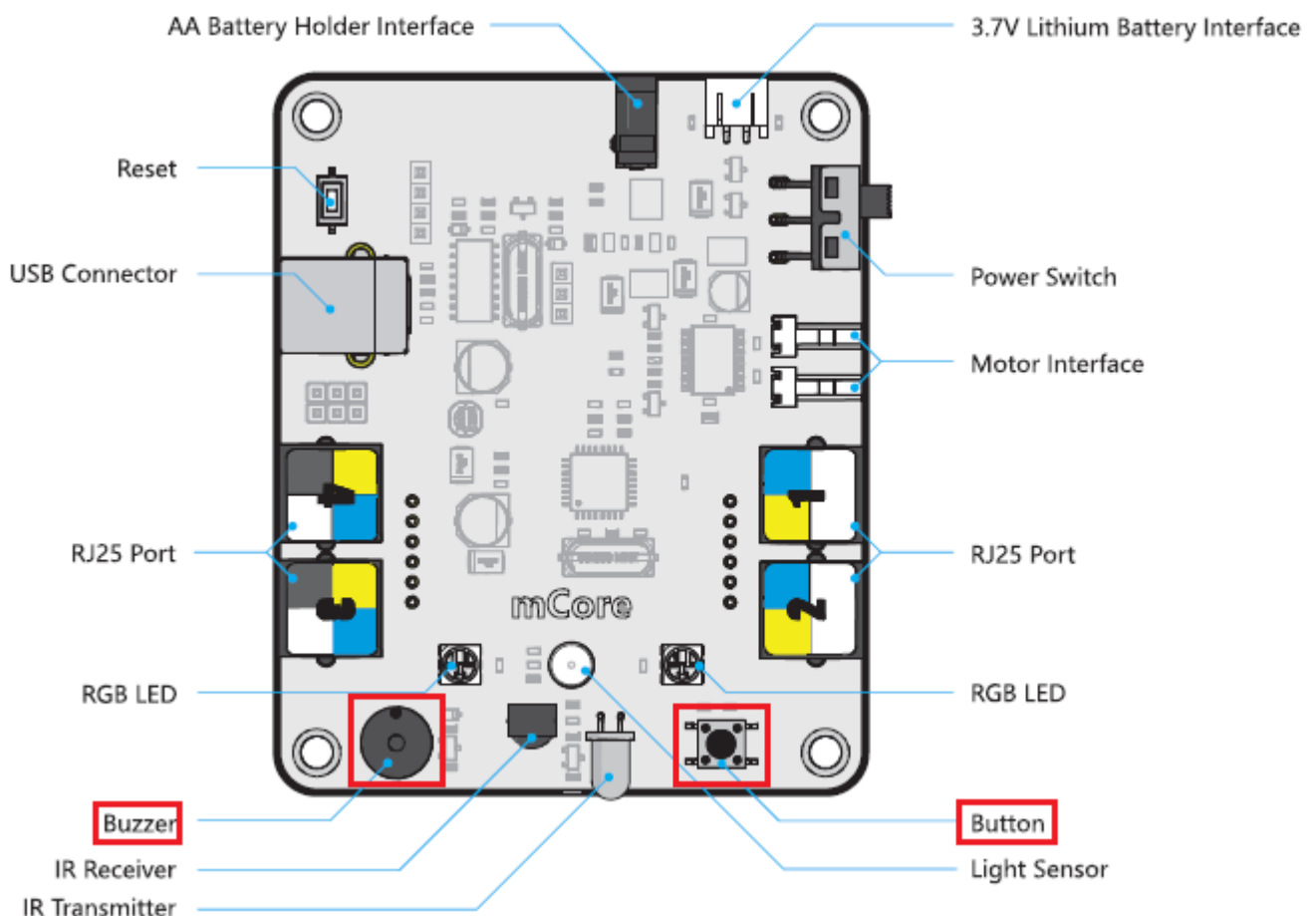The example effects cannot be achieved when you make the replacement.

Extended tasks

Task 1

Refer to Little Star and complete the other segments of the music.

musical alphabet	solfège	numbered musical notation
CCGGAAG- FFEEDDC- GGFFEED- GGFFEED- CCGGAAG- FFEEDDC-	Do Do So So La La So -- Fa Fa Mi Mi Re Re Do -- So So Fa Fa Mi Mi Re -- So So Fa Fa Mi Mi Re -- Do Do So So La La So -- Fa Fa Mi Mi Re Re Do --	1155665- 4433221- 5544332- 5544332- 1155665- 4433221-

Task 2

Refer to other music notations and write more music programs, such as "Are You Sleeping".

Attached -mCore main control board buzzer and onboard button diagram

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Download: [Play a piece of music.sb2](link)