FREE FAMILY GUIDE

mBot Quick Play 01 - Drive + Piano

Simple, tested steps for a first success with the original mBot.



Created by Meredith C

Drive + Piano

Make the arrow keys move mBot in short, controlled steps, then turn keys **1-8** into a tiny piano.

This is the best place to start: there are no variables and no nested modes. Once uploaded, you can unplug the computer and play with the remote.

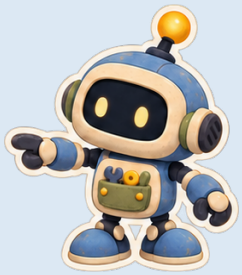
Before you start

- Add **mBot** as the device in mBlock 5. Do not use CyberPi.
- Select **Upload** mode.
- Point the IR remote towards the top of mBot.
- This upload replaces the program currently stored on mBot.

Build the program

Put every if … then block **inside** forever.

Patch check Every remote rule belongs inside forever. Build one small section, then test it.



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```
when mBot(mcore) starts up                    ← Events
stop moving                                   ← Action
forever                                       ← Control
  if <IR remote [0] pressed?> then            ← Sensing
    stop moving
  if <when on-board button pressed?> then
    stop moving
  if <IR remote [↑] pressed?> then
    move forward at power 30 % for 0.3 secs
  if <IR remote [↓] pressed?> then
    move backward at power 30 % for 0.3 secs
  if <IR remote [←] pressed?> then
    turn left at power 40 % for 0.2 secs
  if <IR remote [→] pressed?> then
    turn right at power 40 % for 0.2 secs
  if <IR remote [1] pressed?> then
    play note C5 for 0.25 beats
  if <IR remote [2] pressed?> then
    play note D5 for 0.25 beats
  if <IR remote [3] pressed?> then
    play note E5 for 0.25 beats
  if <IR remote [4] pressed?> then
    play note F5 for 0.25 beats
  if <IR remote [5] pressed?> then
    play note G5 for 0.25 beats
  if <IR remote [6] pressed?> then
    play note A5 for 0.25 beats
  if <IR remote [7] pressed?> then
    play note B5 for 0.25 beats
  if <IR remote [8] pressed?> then
    play note C6 for 0.25 beats
```

Upload

1. Save the project.
2. Connect the USB cable and switch mBot on.
3. Select **Connect → USB**, then choose the port containing usbserial.
4. Select **Upload Code**.
5. Unplug the USB cable before play.

Quick test

1. Switch mBot on. It should remain still.
2. Press each arrow. Every press should produce one short movement.
3. Press **1-8**. You should hear a rising scale.
4. Press **0** or the button on top to stop.

If the remote does nothing, check that the blocks are inside forever and the remote is pointed at the top board.

Want mBot to feel more alive?

The next free activity, **Hello + Shy**, makes mBot greet a hand, choose a random movement and back away when someone comes too close.

You can also connect both activities in one upload-and even teach the **D** key to play a secret birthday song.

The **Complete Remote Playset** includes the connected program, printable remote card and troubleshooting notes.

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Continue with the Complete Remote Playset
Return to the free download page for the connected program, printable remote card, troubleshooting notes and birthday-song Easter egg. No sign-up required.
Find the latest download page and occasional project notes at appsbymeredith.carrd.co.

Safety

- Keep an adult within reach whenever mBot moves.
- Use it on the floor. Do not rely on sensors to stop it at the edge of a table, bed or sofa.
- Small screws and cables are a choking hazard.

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