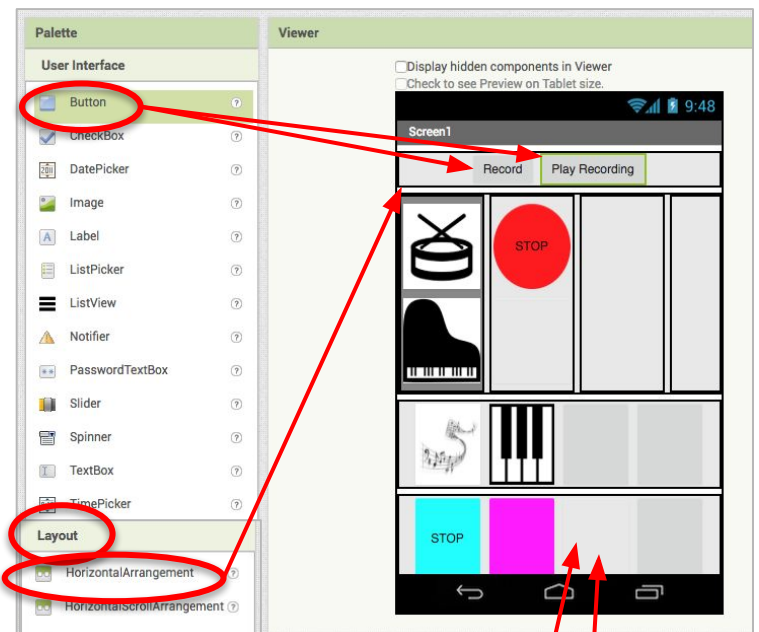


# MUSIC MAKER: CHALLENGE

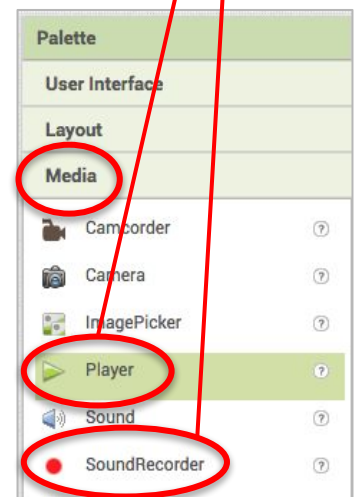
Thanks for trying the Challenge! To do it, you will write the code to Record the music you make with your Music Maker!

## START HERE

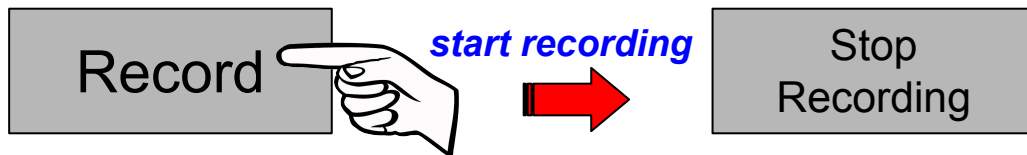
- 1 Go to the MIT App Inventor website (<http://ai2.appinventor.mit.edu>) and open your MusicMaker project.
- 2 Go to the Designer.
- 3 Add a new **HorizontalArrangement** component where it fits well on your app's layout. Add it to the top of the screen. Then add two **Buttons** to the **HorizontalArrangement**.
- 4 Change the *Width* of the **HorizontalArrangement** to **Fill Parent**.
- 5 Rename the first Button "RecordButton" and the second "PlayRecordingButton".
- 6 Change their *Text* to "**Record**" and "**Play Recording**" respectively.



- 7 Add a **Player** and **SoundRecorder** from the Media drawer. They are non-Visible components.
- 8 Rename the **Player** "RecordingPlayer".



This button turns the Recorder on and off. Here is the idea; when the user presses a Record button, the app will start recording. But the button text will also change to say “**Stop Recording**”.



Likewise, if the app is currently recording, when the user presses the button the app will stop recording and change the button's text back to “**Record**”.



## BOOLEAN VARIABLE

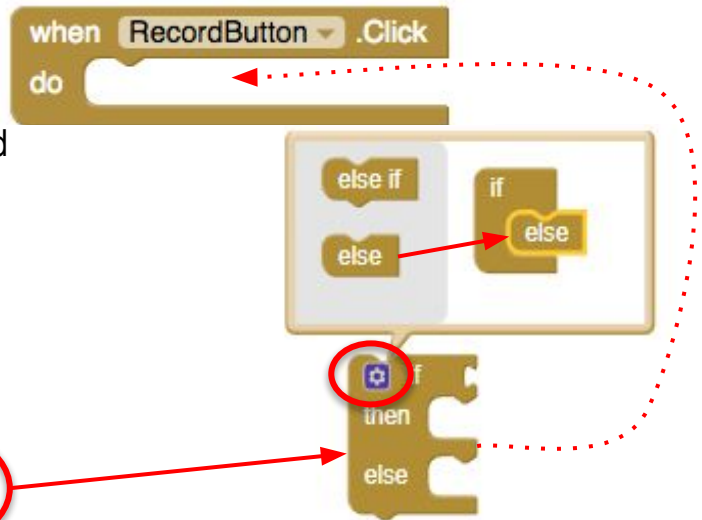
9

You will use a Boolean variable to keep track of whether the app is recording or not. Initially, you are not recording, so the variable is **false**. Create and initialize the new variable, and name it **recording**.

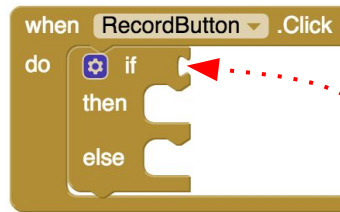
The screenshot shows the MIT App Inventor interface. On the left, the 'Blocks' palette has the 'Variables' category circled in red. In the center 'Viewer' pane, the 'initialize global name to' block is circled in red, with an arrow pointing to a specific instance where the name is 'recording' and the value is 'false'. On the right, another 'Viewer' pane shows the 'Logic' category circled in red, with an arrow pointing to a 'false' value selected in a dropdown menu.

## CHECK IF YOU ARE RECORDING

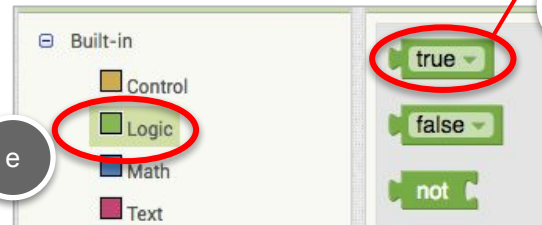
- 10 When the **RecordButton** is clicked, you need to check whether or not the app is recording. To check, you need to use an **if-else-then** block. Drag out an **if-then**, and drag an **else** into the block.



- 11 Test if the app is currently recording, by testing if **recording** is *true*.

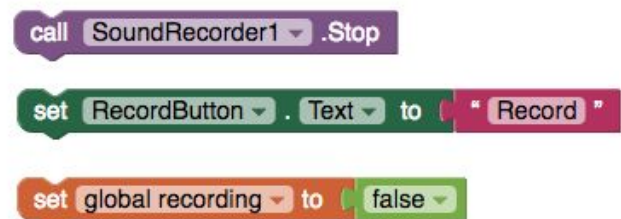


d



- 12 If true then:

- stop recording
- change Button text to "Record"
- set **recording** to *false*

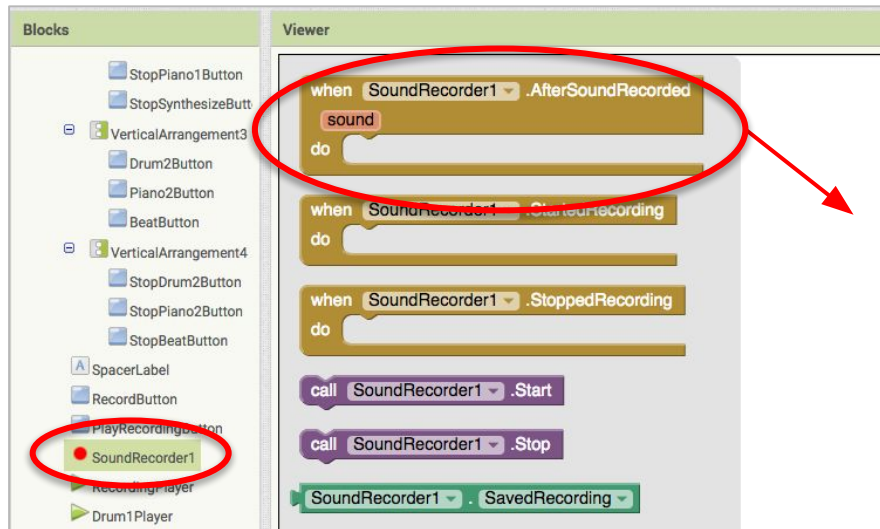


- 13 Can you figure out the blocks for *else*?

## AFTER RECORDING

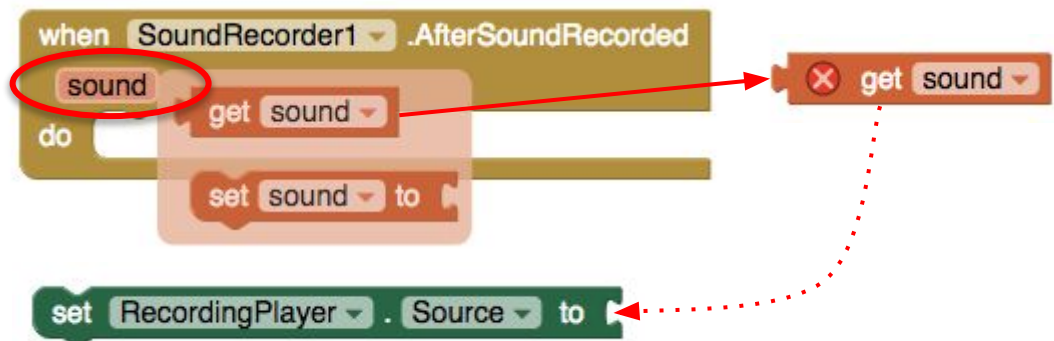
14

For the **SoundRecorder**, after the music is recorded, save the recording so the **RecordingPlayer** component can replay it.



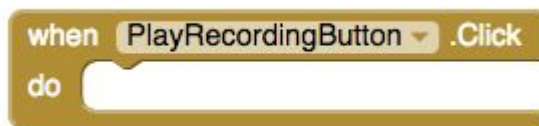
15

The sound variable is the recorded sound, so set the *Source* of your **RecordingPlayer** to **sound**.



16

Do not forget to code the **PlayRecordingButton.Click** event!



17

You might want to disable the **PlayRecordingButton** until the sound has been recorded. Can you figure out how to disable and enable that Button?

What should happen when the user clicks this button?