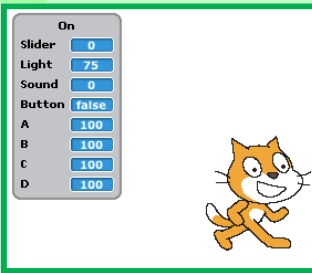
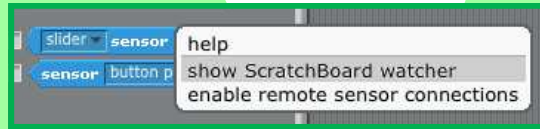


MAKING MUSIC

Step 1: View Sensors

Click on the Sensing category then right click on the slider sensor value and select "show ScratchBoard watcher". Try moving the slider on the PicoBoard and watch the values change in the watcher. What is the lowest value for the slider? What is the highest value for the slider? Try making a sound and see how the sound value changes in the watcher.



Step 2: Musical Pickle

Slice a pickle in half, horizontally. Slide the two juicy pickle slices onto a smooth wooden stick. Jab paper clips into the pickle slices. Attach the alligator clips to the paper clips and the other end to the resistance sensor A.

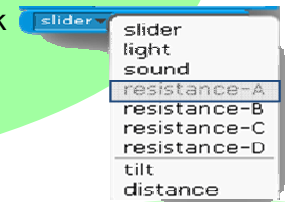


Try: Slide the pickle pieces together and see how it changes the sound.

A resistance sensor measures how much the material resists the flow of electricity.

Step 3: Program It!

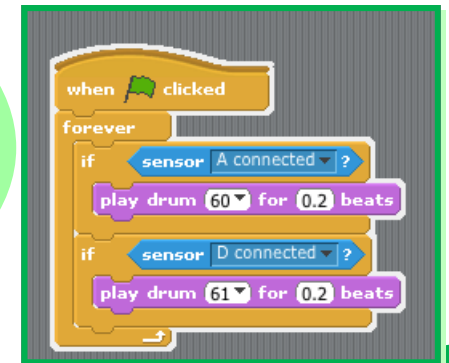
You can use a resistance sensor to create new types of musical instruments. This program measures the resistance, then plays a musical note based on the resistance. The bigger the resistance, the higher the note. The sensor blocks can be found in the Sensing category. To measure resistance, click on the arrow next to "slider" and choose "resistance-A".



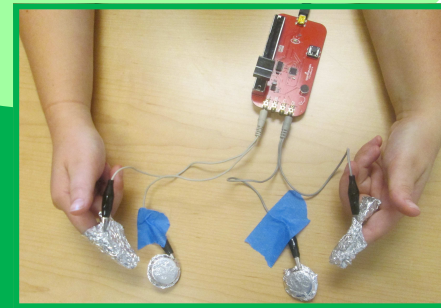
Try: Use the resistance sensor to test the resistance of wood, metal, rubber, and skin.

Step 4: Drum Kit

Cover bottle caps or paper plates with aluminum foil. Attach one alligator clip to the bottle cap or paper plate and the other to aluminum foil on your finger. You can create up to four drums. This script has 2 drums on resistance sensors A and D.



Try: Change the drum or beats.



Try: Change the instrument or beats.

