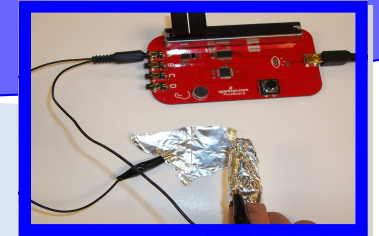


# REACTION GAME



## Play It!

0.65



Wait until you hear a meow, then press the button on the PicoBoard. The cat will show your reaction time, measured in seconds. Can you beat that time? Can you change the script to run 5 times?

```
when clicked
wait pick random 1 to 10 secs
reset timer
play sound meow
wait until sensor button pressed
say timer
```

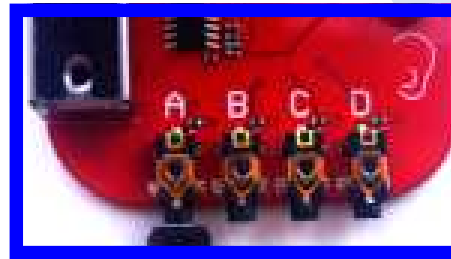
This program waits a random amount of time then plays a sound. It displays the number of seconds it took for you to push the button.

## Hands vs. Feet

How does the computer know when you push the button? It completes the electrical circuit. You can create your own touch sensor using a resistance sensor. Plug in a set of alligator clips to port A and attach one clip to foil on your finger and one to a piece of foil on the table. You can tape the foil to the table to keep it in place.

## How Fast Can You React?

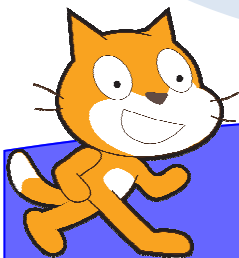
Try it with your other hand. Does your time change? How about with your eyes closed? Let someone else give it a try. Can they beat your time? Try changing the sound. Does that make a difference?



## Hearing vs. Seeing

Try the game with movement instead of sound. Program the sprite to just move 10 forward and then back. Do you react faster to sound or movement?

```
when clicked
wait pick random 1 to 10 secs
reset timer
move 10 steps
move -10 steps
wait until sensor button pressed
say timer
```



## More Things to Try

Use the alligator clips to check the resistance of wood, metal, cloth, and your skin. Which of these things conduct electricity and which do not (are resistive)?

```
when clicked
wait pick random 1 to 10 secs
reset timer
move 10 steps
move -10 steps
wait until sensor A connected
say timer
```

## Challenge!

Then try it with your foot! Which was faster, your finger or your foot?