

First Load



"Movie actor John Travolta is standing on a rug and reaching for the door knob."

John Travolta

PHET

Press Tab



"Use left and right arrow keys to move John's leg.

Hold down Shift and left or right arrow keys to move John's leg more quickly."

Press Enter



brushing sounds
As foot moves across the carpet.

popping / bubbling
sounds as electrons appear.

John Travolta

PhET

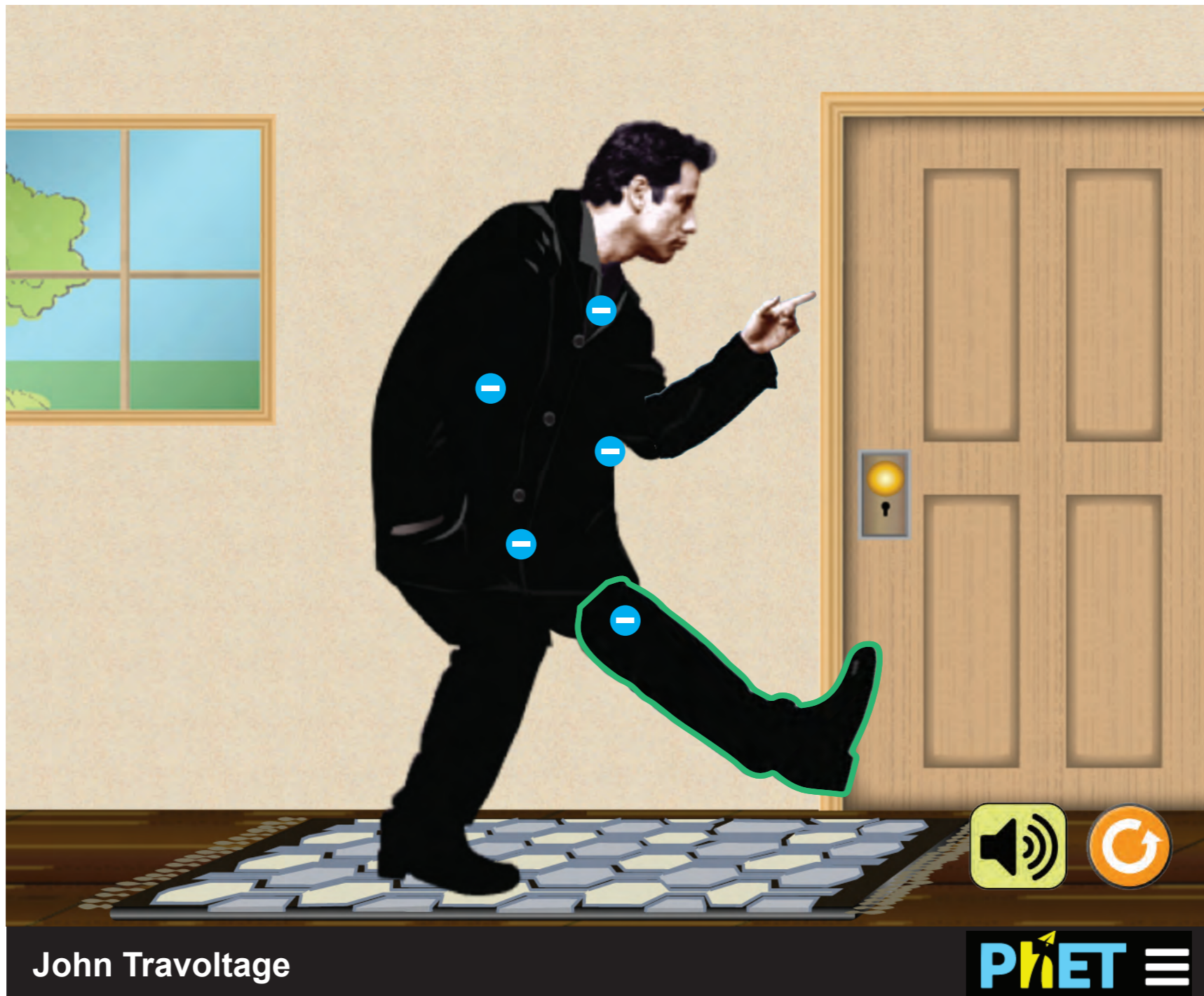
As negative charges enter the body



clinking glass sounds as electrons bounce around.

Note: Negative charges repel each other. Sonnification should try to reflect this.

As negative charges bounce around



clinking glass sounds as electrons bounce around.

John Travolta



Note: Negative charges repel each other. Sonification should try to reflect this.

If there are enough charges, and finger is close enough - discharge happens.



ZAP!

Press Tab



"Use the arrow keys to move John's hand.
Hold down Shift while pressing an arrow key to move John's hand more quickly."

John Travoltage

PhET

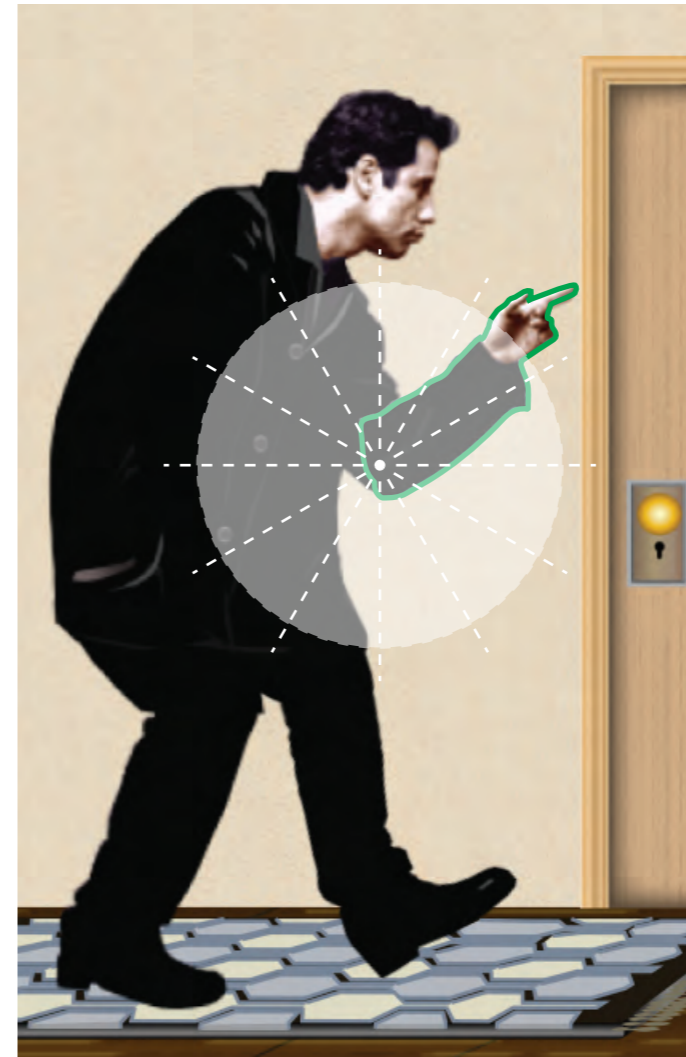
Degrees of Arm Movement

The arm moves around in a circle divided up into 60 stops. The user can increase the rate in which they traverse the circle by holding down a modifier key (the "accelerator key") while pressing an arrow key. For each arrow press while the accelerator is held, the arm moves in 5 stop intervals.

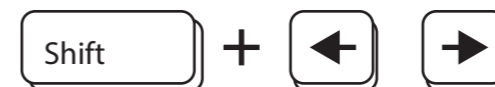
The circle is divided in a similar manner as a clock face which may be of use in future text descriptions.



Degrees of arm movement with just arrow keys.



Degrees of arm movement with accelerator key depressed.

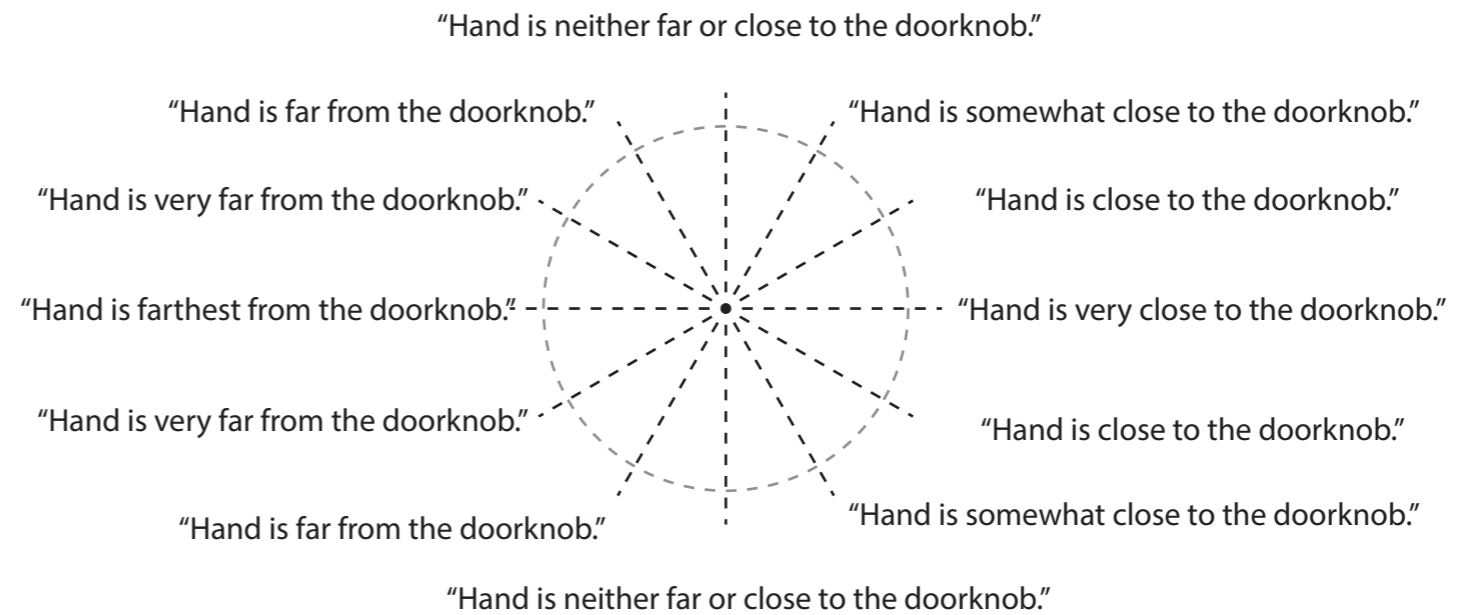


Degrees of Arm Movement with Accelerator



While the user has the accelerator key depressed, pressing the left / up, right / down arrow keys will make the arm move in 1/12 increments instead of the default 1/60 increment.

Each time the arm is moved, the description of the arm position is updated.



Degrees of arm movement with just accelerator key depressed.

Degrees of Arm Movement Detail

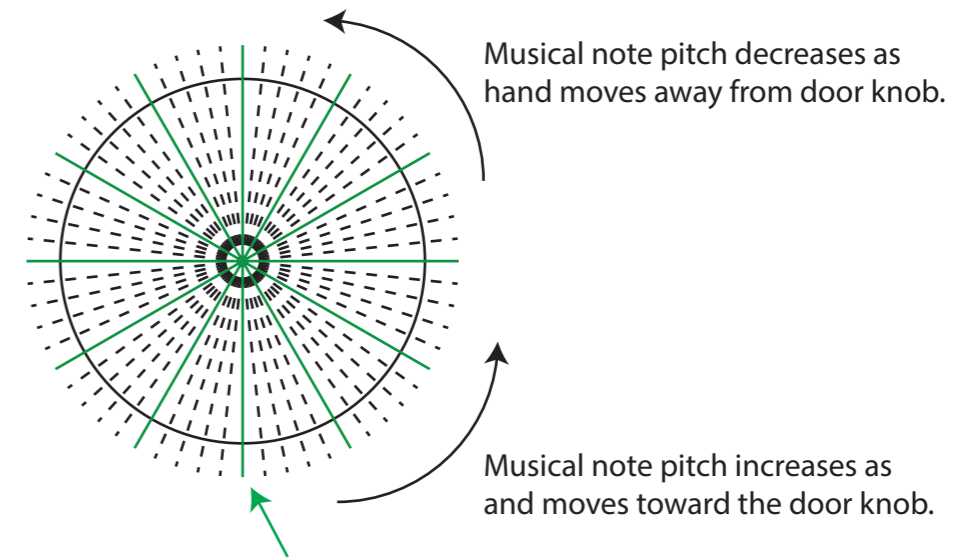


Degrees of arm movement with just arrow keys.

Pressing the left / up, right / down arrow keys will make the arm move in 1/60 increments around the circle.

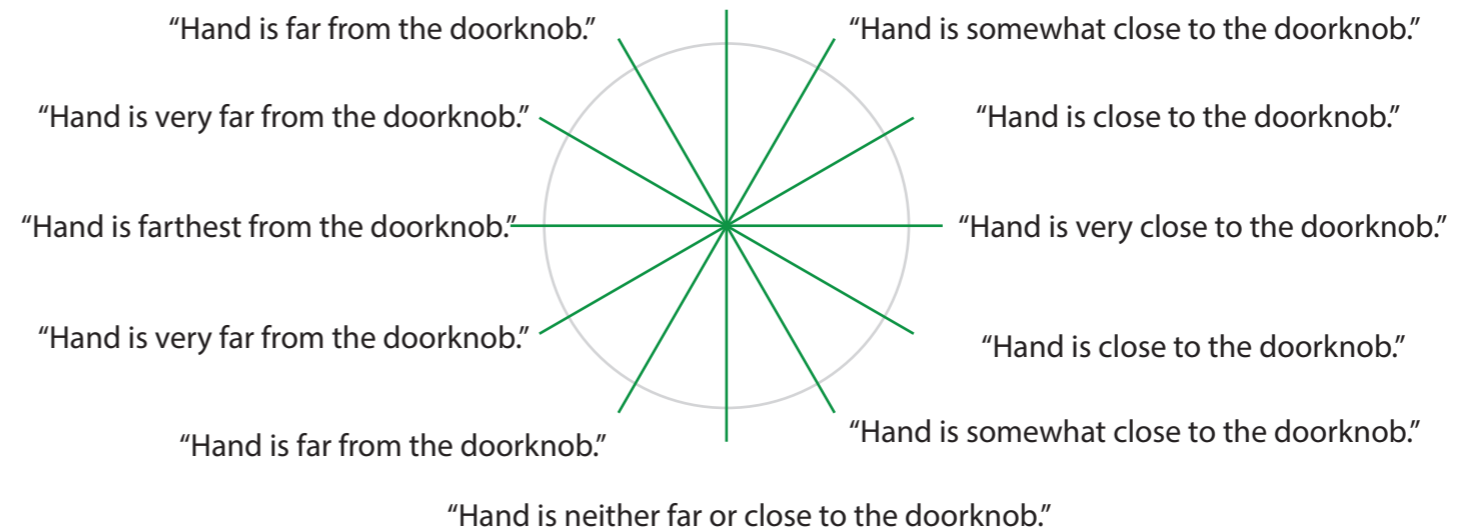
As the arm:

- moves closer to the doorknob, a note is played with increasing pitch.
- moves away from the doorknob, a note is played with decreasing pitch.
- lands on each denoted mark, the description of the arm position is updated.



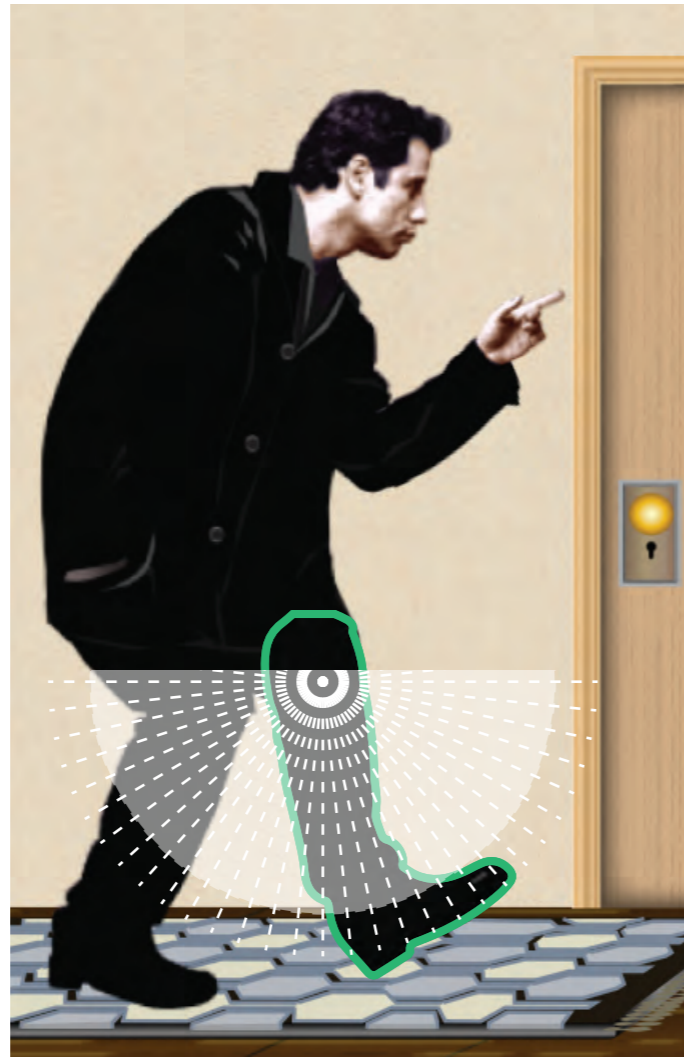
User will hear the textual feedback at these points.

"Hand is neither far or close to the doorknob."

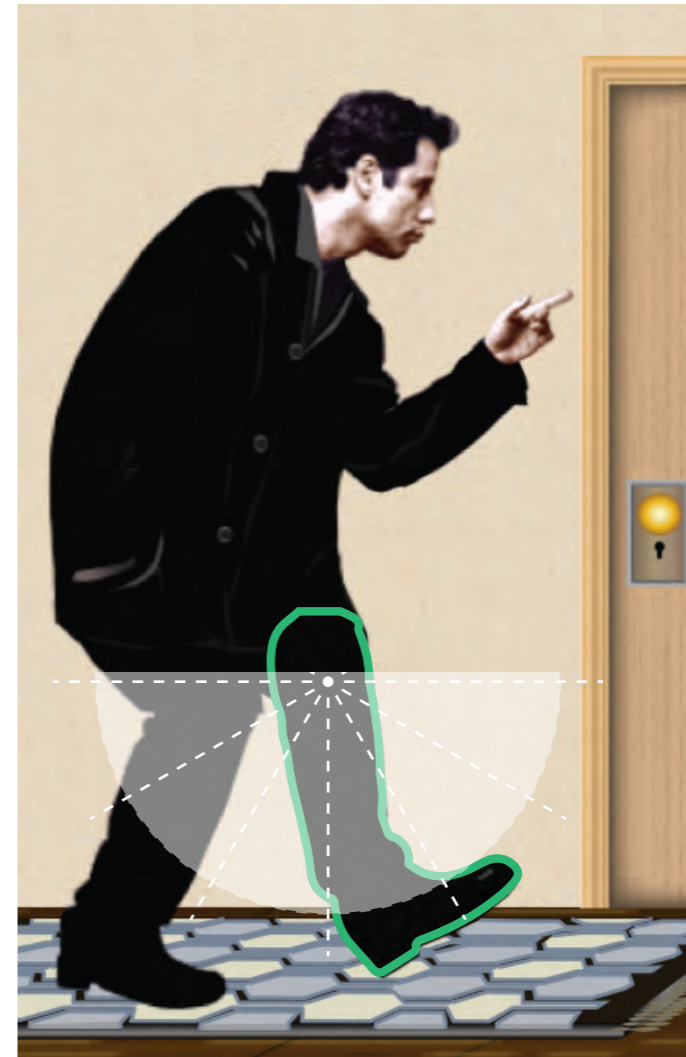


Degrees of Leg Movement

The leg moves around in a half circle divided up into 30 equal stops. The user can increase the rate in which they traverse the circle by holding down a modifier key (the “accelerator key”) while pressing an arrow key. For each arrow press while the accelerator is held, the leg moves in 5 stop intervals.



Degrees of leg movement with just arrow keys.



Degrees of leg movement with accelerator key depressed.

