

MORSE CODE

With this project you'll learn how to make and break codes- you and your friends can become secret agents! But you have to have a good ear! This code uses a series of short and long tones, dots and dashes, instead of letters of the alphabet or numbers. Samuel Morse thought up this idea in 1837. That's why it's called the Morse Code. Ready to make the circuit?

Start by connecting #3 to #35

Connect #35 to #38

Connect #4 to #20

Connect #20 to #23

Connect #19 to #36

Connect #24 to #37

Connect #37 to #39

Connect #25 to #34

Now, hook up the battery. Touch the long, yellow wire to spring #36. If you don't hear a noise, check your connections. If there was a noise, Great! Awesome! You're ready to go to work! Quickly touch spring# 36 with the yellow wire to make a **dot** sound. Touch it longer to make a **dash** sound. The most popular Morse Code is "dot dot dot, dash dash dash, dot dot dot", or "SOS," which is short for "Save Our Ship!"

Now you're ready to send your secret messages. Maybe you could send a Top Secret Birthday Card to your mom or dad!

Here's how the circuit works:

Check out our Electronic Pinball Game and follow the bouncing electron-balls. When you touch the wire to the spring, you complete the circuit and send electricity to the piezo transducer.

When the wire's connected, the electrons go up the ramp, oscillate between the transformer and capacitor, and then bounce to the piezo to BEEP! When the wire's not connected, the battery can't send any electrons up the ramp, so they just fall back into the battery. No connection, no electrical flow, and no sound!

a	⚡-	b	-⚡⚡⚡	c	-⚡-⚡	d	-⚡⚡	e	⚡
f	⚡⚡-⚡	g	--⚡	h	⚡⚡⚡⚡	i	⚡⚡	j	⚡---
k	-⚡-	l	⚡-⚡⚡	m	--n	-⚡	o	---	
p	⚡--⚡	q	--⚡-	r	⚡-⚡	s	⚡⚡⚡	t	-⚡--

u ¥¥-
z --¥¥

v ¥¥¥-

w ¥--

x -¥¥-

y -¥--