

# A sign of things to come

What do this man and the girl on the bridge have in common?  
 As VEDRANA GRBOVIC explains, the answer is the remote control.



For more information: [www.teslaforum.com](http://www.teslaforum.com)

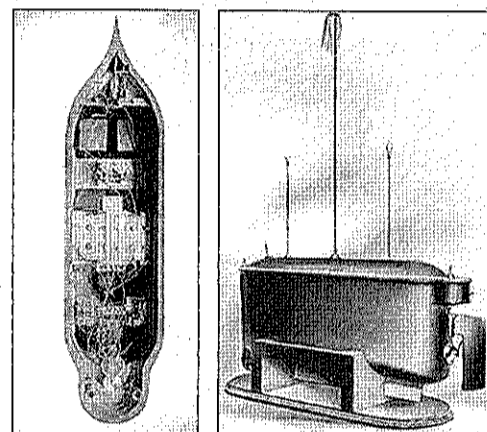


**T**he man is Serbian-American **NIKOLA TESLA**, one of the greatest scientists and inventors who invented, among many other things, the remote control and demonstrated it in New York in 1898.

And the girl is using a remote-control helicopter based on Tesla's invention.

In 1898, an astonished group of potential investors watched Tesla demonstrate his remote-control boat at Madison Square Garden in New York City as part of the Electrical Exhibition. He described the boat as the first "teleautomation", the first of many robots to be developed over the years. His radio-control system was patented that same year.

This demonstration went completely beyond the generally accepted limits of technology. The boat was a heavy, low-lying, steel craft just over a metre long. At that time radio hadn't been officially patented (Tesla's basic radio patent was filed in September 1897, but granted in March 1900), so examiners from the US Patent Office were reluctant to recognise improbable claims made in the application "Method of and Apparatus for Controlling



Tesla's first remote-controlled boat.

Mechanism of Moving Vessels or Vehicles" Confronted with a working model, however, examiners quickly issued approval.

In fact, Tesla had been walking around New York City since 1895 picking up radio signals generated in various high-frequency experiments. He had received them from as far as 48km away, at West Point. In a short time, with the invention or improvement of several more control elements, he was then able to put them to use in the form of the remote-controlled boat.

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## Catflip

You may have heard that cats will always land on their feet or that toast always lands butter side down. Here is an activity that shows how some objects will flip when falling through the air.

### You will need

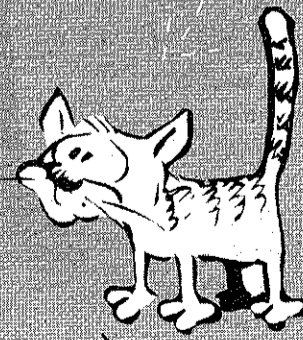
- Cardboard (10cm by 10cm)
- Texas
- Table (one metre high)

### What to do

- 1 Draw a cat's head on one side of the card and cat's legs on the other.
- 2 Place the card on the edge of the table with the cat's head facing up.
- 3 Gently push the card off the table and watch what happens. Did it land with the head facing up or did it flip with the legs facing up?
- 4 Repeat the experiment another four times and see what happens.

### What's happening?

When you push the card off the table, the side that goes over the edge first, starts falling first and so the card starts to spin. The card only has time in the one metre drop to do half a spin and so most of the time you will find the side with the cat's legs facing up. If you try this experiment from a higher table, you might find there is a different result as there will be more time for the card to spin. When cats fall through the air they can quickly determine whether they are upside down or right way up as they have an amazing sensory system. Once they have figured this out they are able to control the way they spin using their very flexible bodies so they usually (but not always) land on their feet.



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