

# Technology

## Invention of the television

Where does the word television come from and what does it mean?

### A name for TV

For years before TV was invented, people dreamed of being able to send moving pictures long-distance. They came up with all kinds of futuristic names for this hi-tech idea...

Optiphone!

Phototelegraphy!

Mirascope!

Farscope!

Radioscope!

### Light into electricity

Television works by turning patterns of light into electrical signals. In 1839, Edmond Becquerel found that shining light onto some types of metal creates an electric current. This led to the invention of the photo-voltaic cell, which turns light into electricity. Becquerel had taken the first step towards inventing the television.

Televisions work by turning

The word that finally caught on – “television” – was made up in about 1900, over 20 years before TV actually existed. It comes from the Greek word “tele”, meaning distant, and the Latin word “visio”, meaning sight.

# Scanning moving pictures

On Christmas Eve, 1883, a German science student named Paul Nipkow had an idea for a machine that could scan moving images and turn them into a series of signals. His invention was the Nipkow disc. It was a simple disc with holes in it, arranged in a spiral. Here's how it worked:

## Nipkow disc

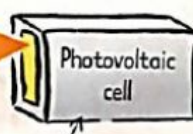
1. The disc spins very fast in front of a moving object.



2. Light from the object hits the disc and patterns of light shine through the holes.



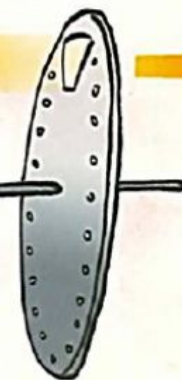
3. As the disc spins, the holes pass in front of the image. Each hole records a slice of the moving image as a flashing pattern of light and dark.



4. The light patterns are collected by a photovoltaic cell and turned into a series of electrical signals.



5. If the same light patterns shine through another spinning Nipkow disc, the moving image reforms and can be seen on a screen.



Imagine a four year old asked you how the Nipkow disk worked. How will you describe it?



## The television trail

In the early 1900s, many inventors tried to build working televisions that could actually send moving pictures long-distance. The first to succeed was probably Russian scientist Boris Rosing. In 1907 he made a television using a Nipkow disc. But he only managed to transmit still silhouettes. The first inventor to build a TV and use it to send a proper moving image was a Scotsman, John Logie Baird.

What was wrong with Boris Rosings invention ?

Who was the first inventor to build a TV and use it to send a proper moving image ?

## John Logie Baird

Today, many people think of John Logie Baird as the true inventor of television – although his system was soon replaced by improved versions designed by other inventors. Baird built his TV system in his attic. It was based on the Nipkow disc, and made of household objects. Finally, on Friday 31 October, 1925, he managed to get his TV to work for the first time.

Please watch the video

**Do you think this is a good invention? Why?**

Click here:

