Piezoelectric film used for new remote that twists and bends

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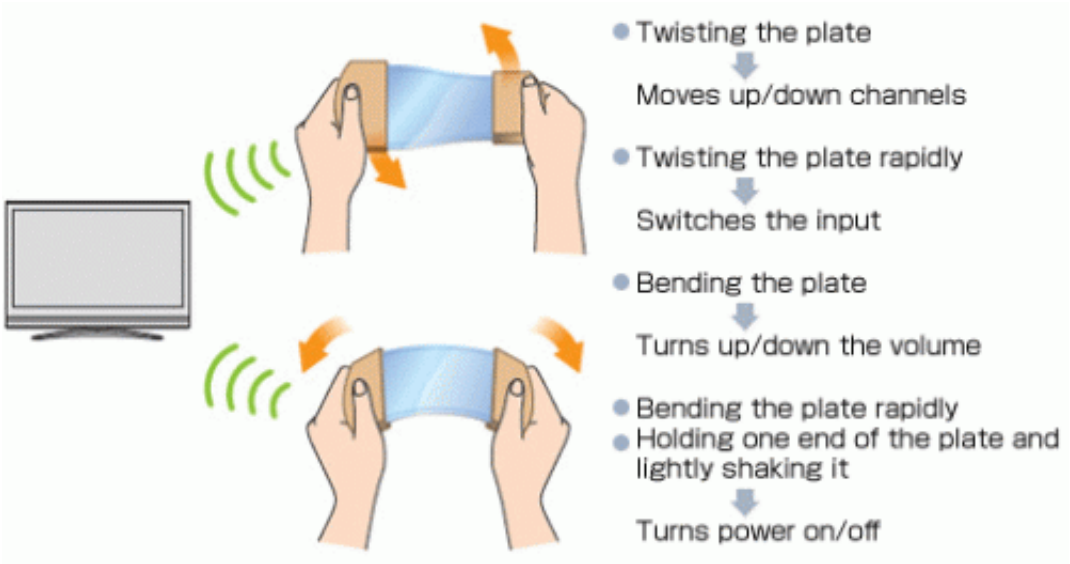
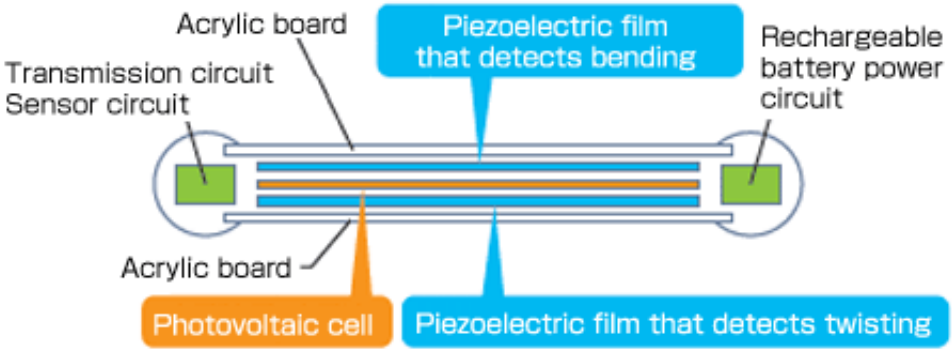
Leaf Grip Remote Controller using piezoelectric film (sample)

(PhysOrg.com) -- Murata Manufacturing Co. is using high-transparency organic piezoelectric film for its two new devices, a remote control that works by bending and twisting, and a touch-pressure pad that connects to PCs. Murata will ship samples of both devices next year.

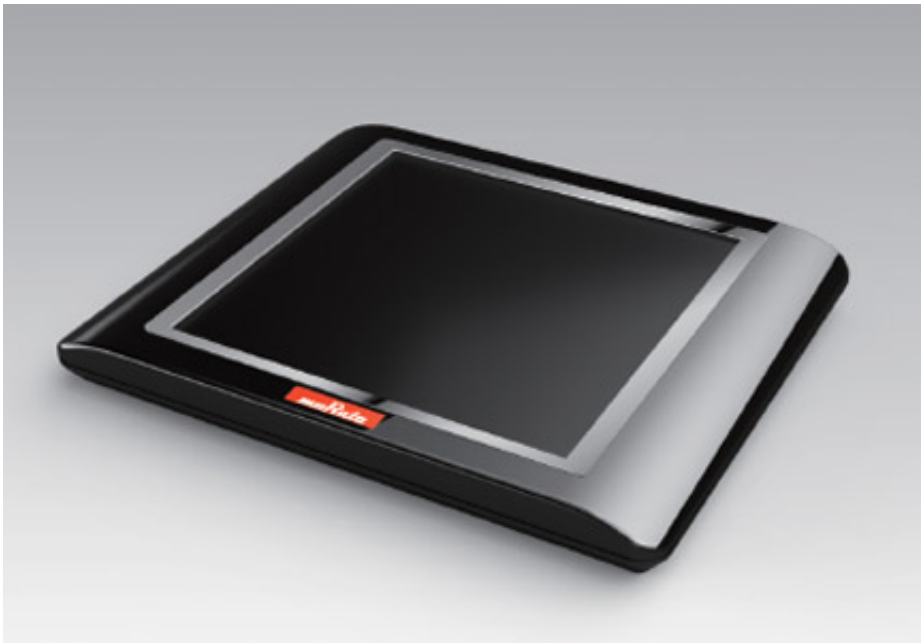
Murata says the film they are using has a high piezoelectric output constant; high transparency (light beam transmittance of 98% or higher according to the internal haze measurement) and most notably it is free from the “pyroelectric effect.”

Murata, in its press release announcing the devices, stresses what is special about its film. Conventional piezoelectric films are usually subject to a pyroelectric effect. The company says this is a drawback because they cannot detect bending and twisting vibrations separately from changes in temperature. Murata instead has developed a high-transparency piezoelectric film that is free from the pyroelectric effect. Murata developed the film through a joint research effort with Kansai University and Mitsui Chemicals.

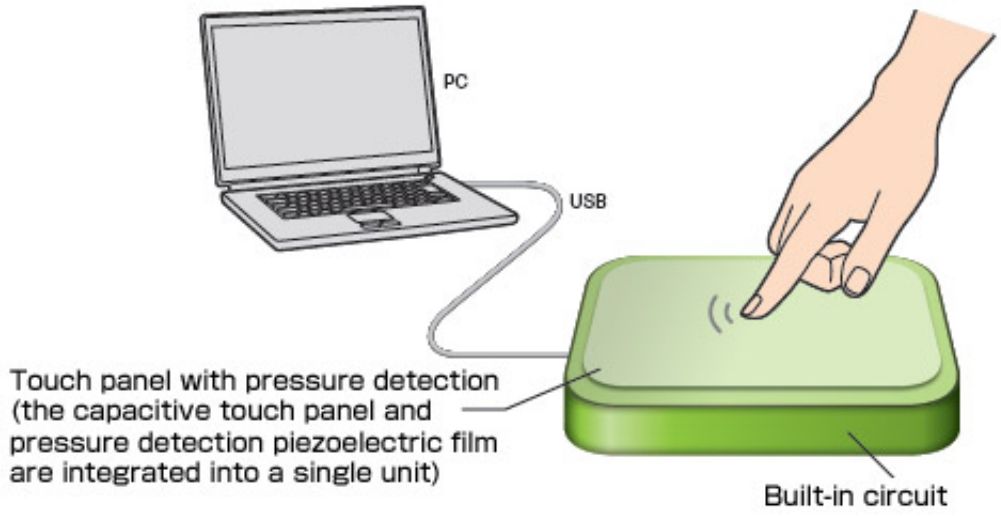




That bending and twisting movement is the key feature of its new remote control device for TVs. The device is called the Leaf Grip Remote Controller, and it can convey the tv user's commands by using a bending and twisting motion. The control device uses two piezoelectric films: one for detecting bends and the other for detecting twists. Murata further describes the remote as using pigments to discharge electrons when it receives light, and is assembled with a photovoltaic cell that converts light into electricity to provide it with a "battery-less feature."



Touch pressure pad using piezoelectric film (sample)



The second device that Murata announced is a Touch Pressure Pad, which is a panel that can be connected to a PC. The touch panel can detect vertical and horizontal finger movements and can measure the user's pressure strength. For example, the user can enlarge an image at high speed by pressing the panel firmly and at low speed by pressing the panel lightly.

Murata will exhibit and demonstrate their devices at CEATEC Japan 2011, which will take place from Oct 4, 2011 in Chiba Prefecture, Japan. CEATEC is Japsn's IT and electronics trade show. Murata will start to ship samples of the sensor and touch panel in the spring and fall of 2012.

More information: Press release