

# A Touching Slate

**This slate can help blind children in recognising shapes. But it is great fun for normal children too. Dr. Dilip Bhatt designed it for his blind son. Dr. Bhatt works for the Indian Space Research Center (ISRO) in Ahmedabad. As you write on this slate, wool comes out of a pen and sticks to the Velcro on the slate.**

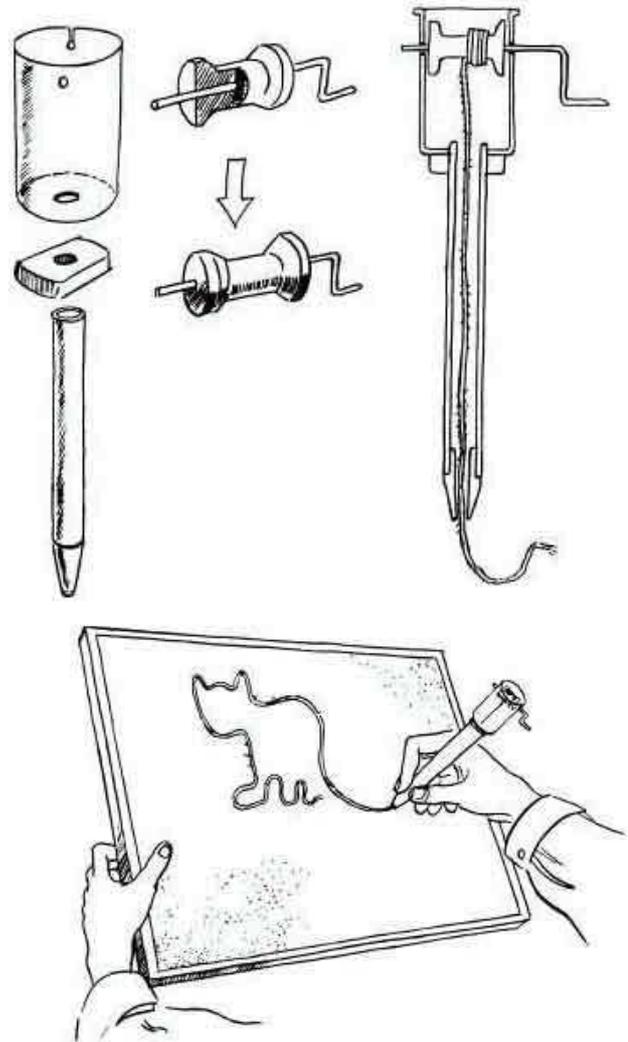
## The Slate

The actual writing is done on the **Velcro**, which is supported underneath by plywood. Stick Velcro strips on a rectangular piece of plywood to make this slate. Velcro comes as a strip. It has got thousands of minute nylon hooks on its surface. The fibers of the wool stick to these hooks.

## The Pen

The special pen is made from a film roll bottle and the outer plastic casing of an ordinary ball pen. A hole is made in the base of the bottle. The pen is fixed in this hole with a piece of shoe rubber and some *Fevibond* (rubber adhesive). A small wire (cycle spoke piece) is bent into a “Z” shape to make the crank. A small pulley - made from a piece of shoe rubber is attached to the crank. Two holes are made near the mouth of the bottle to fix the crank.

One hole is slit for easy fixing and removal of the crank from the bottle. Take 1.5 meters of thin wool. Tie one of its ends to the pulley and then wrap it around the pulley. Weave the other end of the wool through the bottle and the pen body. Tie a thick knot at the writing end of the wool. Now place the crank with the wool in the bottle. Hold the pen and start drawing a cat on the slate. The wool will come out of the pen and stick to the Velcro. To erase the picture simply rotate the handle. The wool will get wrapped around the pulley and the picture will disappear.



*Illustrations by Henrik Johansson*