



National Innovation Foundation

National Award, Second  
Utilities and General Machineries: Electronic robot



**Shri Prem Singh Saini**

### **Electronic robot**

The robot designed by Prem Singh can be guided by the modified remote control used for televisions. It can recognize the obstacles in its way and move in the desired direction through a visible light sensor. It can be adapted to take photographs with a camera attached to it. Due to its reach in some of the humanly inaccessible areas, it could help in mines, locating survivors in fallen buildings as well in defense. The robot has 40 ICs (integrated circuits), more than two hundred transistors and 900 resistors apart from other components. It also has 10 wheels, 5 motors, 6-volt battery and a few sensors.

The robot is also able to work as a fire alarm and indicate humidity levels. It also has a small device to launch a missile or a bomb for defense purposes. In addition, he has thought about ideas of giving automatic signal to the trains on a single track coming closer to each other within a specified distance, so as to avoid accidents.



Shri Prem Singh Saini (25 years), has studied upto eight standard. Since his childhood, he was not interested in the conventional education, but was very much interested in playing with electronic components. He bought old electronic magazines and books and started learning about circuits and applying electronics to different uses. He wrote to major laboratories within India as well as abroad. He got encouraging letter from US universities but often met with a silence within the country.

However, he has not given up despite all the frustrations. Inspired by the pathfinder vehicle in space, he thought of making a robot. His interest in this field led to the innovation of an 'electronic robot'.

Despite his family's low income and bad economical conditions he developed this electronic robot, which is the product of four years of his unrelenting effort. He claims that he can design better robot than this, but lacks the means to do so.

*VPO – Pasiala,  
District: Ambala,  
Haryana  
Scout: SRISTI GYAN KENDRA,  
Uttaranchal*