

# Mosquito repelling television

The Indian division of South Korea's LG Electronics has developed a TV it claims can repel mosquitoes, which spread diseases such as malaria, Zika and dengue

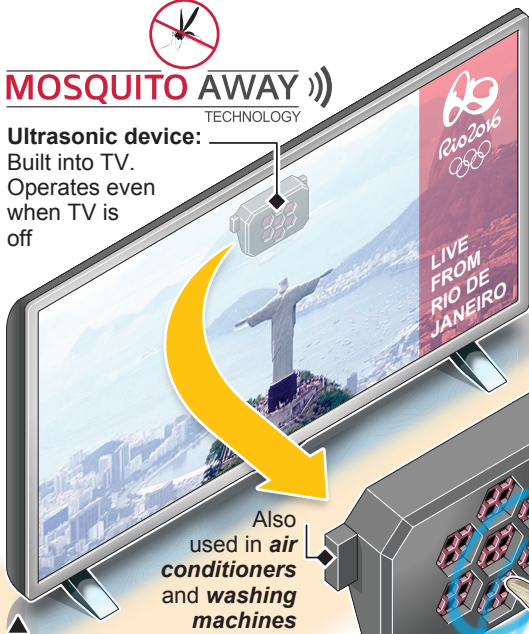


## MOSQUITO AWAY

TECHNOLOGY

**Ultrasonic device:**

Built into TV.  
Operates even when TV is off



Also used in **air conditioners** and **washing machines**

**LG 32LH520D**

**Vision:** 32in HD screen

**Sound:** 20W speakers

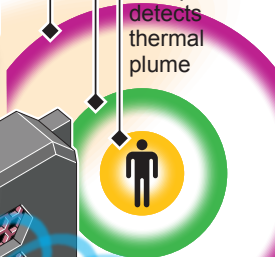
**Cost:** \$399

## HOW MOSQUITOES LOCATE HUMANS

**10-50m:** Mosquito detects CO<sub>2</sub> plume from person's breath

**5-10m:** Mosquito sees person

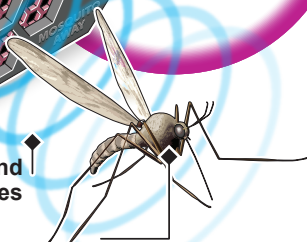
**20cm:** Mosquito detects thermal plume



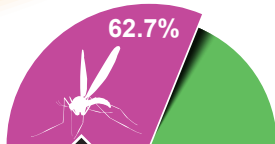
## HOW TV REPELS MOSQUITOES

Range of human hearing:  
**20Hz-20,000Hz (20kHz)**

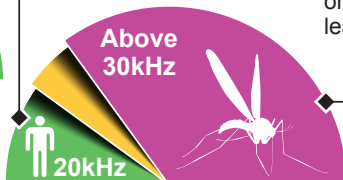
Sound waves



**Mosquitoes:** Rendered inactive or motivated to leave area



Percentage of *anopheles gambiae* mosquitoes repelled in clinical trials



Frequency above **30kHz** used to repel mosquitoes