

Technical Disclosure Commons

Defensive Publications Series

November 20, 2018

METHOD FOR DETECTING PROXIMITY BETWEEN OPERATOR AND KEYBOARD FOR LIGHTING EFFECT

HP INC

Follow this and additional works at: https://www.tdcommons.org/dpubs_series

Recommended Citation

INC, HP, "METHOD FOR DETECTING PROXIMITY BETWEEN OPERATOR AND KEYBOARD FOR LIGHTING EFFECT", Technical Disclosure Commons, (November 20, 2018)
https://www.tdcommons.org/dpubs_series/1663



This work is licensed under a [Creative Commons Attribution 4.0 License](https://creativecommons.org/licenses/by/4.0/).

This Article is brought to you for free and open access by Technical Disclosure Commons. It has been accepted for inclusion in Defensive Publications Series by an authorized administrator of Technical Disclosure Commons.

Method For Detecting Proximity Between Operator and Keyboard for Lighting Effect

Abstract

Gaming personal computers and accessories continue to grow in popularity worldwide. Demand for new and unique aesthetic features by customers can give a PC supplier the competitive edge. Disclosed is a method which integrates existing proximity sensor technology into gaming keyboards to provide a unique lighting experience.

Current RGB gaming keyboard lighting features include programmable zone-based and per-key based RGB backlighting. Most gaming keyboards include a list of effects such as Color Pulse, Rainbow, or Static color zones. All features are either continuous or require a key on the keyboard to be pressed to initiate the effect.

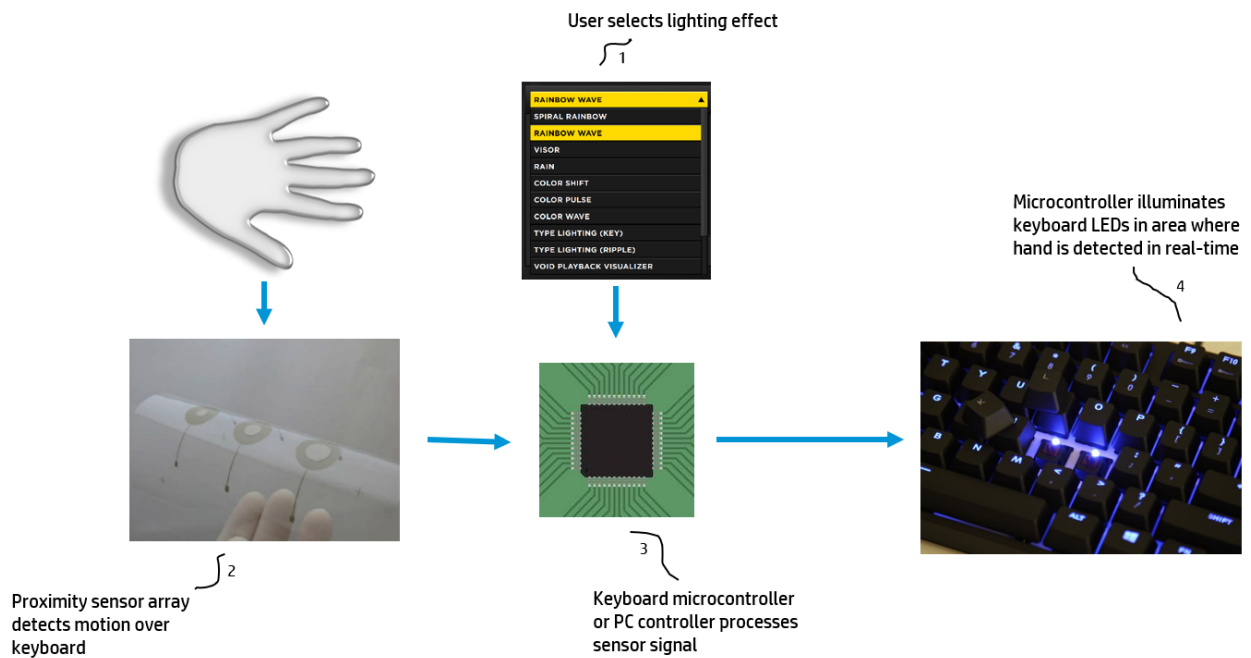
Description

This method utilizes a flexible proximity sensor film array to detect motion above the keyboard to trigger RGB lighting effects. Flexible proximity sensor film array fabrication is described in patent No. WO/2014/050560 and is a non-touch capacitive type sensor. By integrating this technology into the keyboard membrane, an unlimited number of lighting effects can be triggered when human hands are moved above the keyboard without physically touching the keys.





Proximity sensors can track the fingers and palms as the operator moves across the face of the keyboard. The signals picked up by the proximity sensors will be processed in real-time by an onboard microcontroller for stand-alone keyboard accessories or by existing controllers in a PC application.



Disclosed by Jeffrey Ryan Morgan, HP Inc.