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(54) **LIGHT-EMITTING DIODE BASED PRODUCTS**

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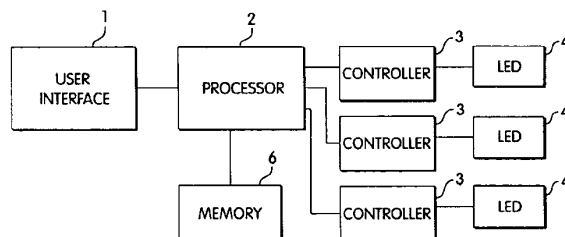
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(57) **ABSTRACT**

High-brightness LEDs, combined with a processor for control, can produce a variety of pleasing effects for display and illumination. A system disclosed herein uses high-brightness, processor-controlled LEDs in combination with diffuse materials to produce color-changing effects. The systems described herein may be usefully employed to bring autonomous color-changing ability and effects to a variety of consumer products and other household items. The system may also include sensors so that the illumination of the LEDs might change in response to environmental conditions or a user input. Additionally, the system may include an interface to a network, so that the illumination of the LEDs may be controlled via the network.

**104 Claims, 24 Drawing Sheets**



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