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(54) Title: DEVICE AND METHOD FOR EXTERNALLY MEASURING BLOOD FLOW

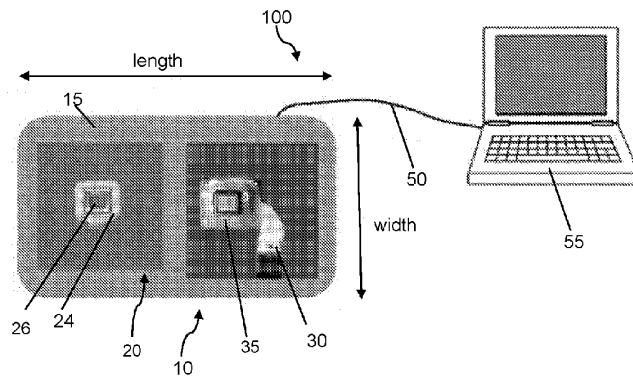


FIG. 1

(57) Abstract: A sensing device, a wearable device, and a method of use to externally measure blood flow is described. The sensing device includes a single printed circuit board, one or more laser diodes configured to emit light at an object, one or more laser drivers configured to supply power to the one or more laser diodes, an image sensor configured to receive the light reflected and/or scattered from the object, and a controller configured to process a signal from the image sensor, the signal being related to the received light, wherein the one or more laser diodes, the one or more laser drivers, the image sensor, and the controller are integrally disposed on the single printed circuit board. The wearable device includes the sensing device and a fastening mechanism. The sensing device and wearable device may be used to externally measure blood flow.

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