



US007180502B2

(12) **United States Patent**  
**Marvit et al.**

(10) **Patent No.:** **US 7,180,502 B2**  
(45) **Date of Patent:** **Feb. 20, 2007**

(54) **HANDHELD DEVICE WITH PREFERRED MOTION SELECTION**

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(\* ) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 511 days.

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(21) Appl. No.: **10/807,570**

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(22) Filed: **Mar. 23, 2004**

(Continued)

(65) **Prior Publication Data**

US 2005/0212758 A1 Sep. 29, 2005

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(51) **Int. Cl.**

**G09G 5/00** (2006.01)

(57) **ABSTRACT**

(52) **U.S. Cl.** ..... **345/156; 345/158**

(58) **Field of Classification Search** ..... **345/156–158; 715/856–864; 348/734**  
See application file for complete search history.

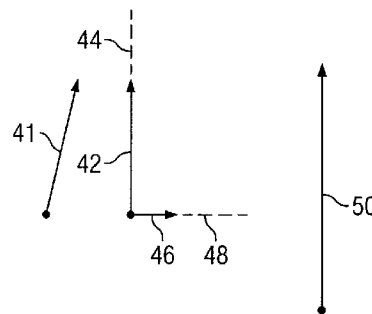
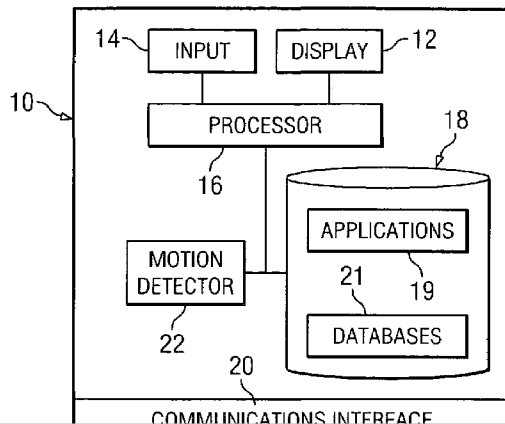
A motion controlled handheld device includes a display having a viewable surface and operable to generate an image and a motion detection module operable to detect motion of the device within three dimensions and to identify components of the motion in relation to the viewable surface. The components comprise a first component parallel to the viewable surface, a second component parallel to the viewable surface and perpendicular to the first component, and a third component perpendicular to the viewable surface. The device includes a motion processing module operable to compare the components, to isolate a preferred one of the components based on the comparison, and to adjust a magnitude of the preferred component by an augmentation factor. The device also includes a motion response module operable to modify the image based on the augmented preferred component.

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**21 Claims, 11 Drawing Sheets**



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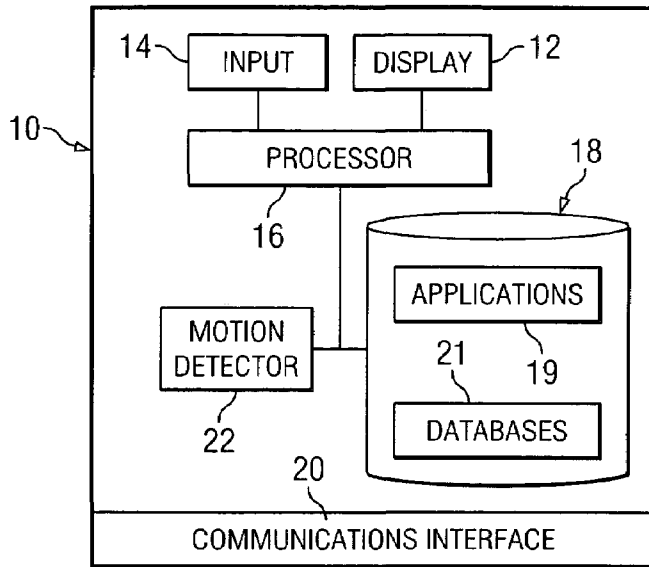


FIG. 1

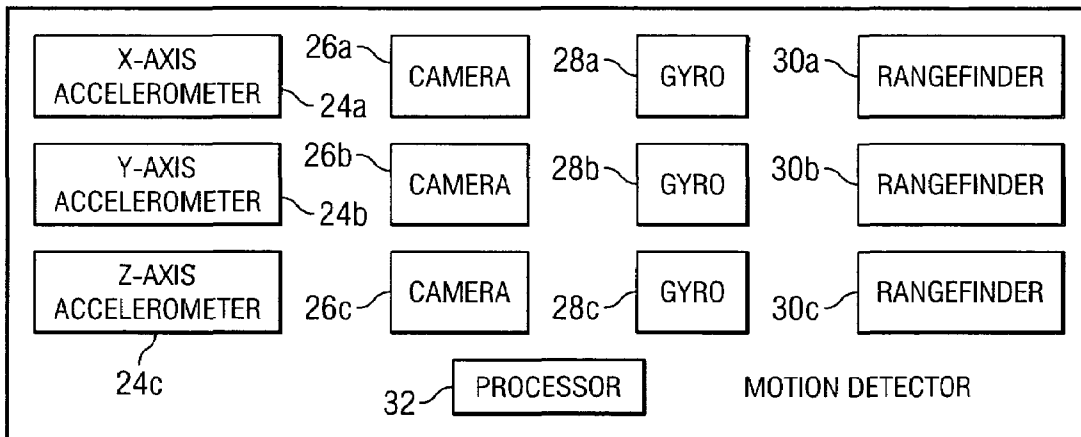


FIG. 2

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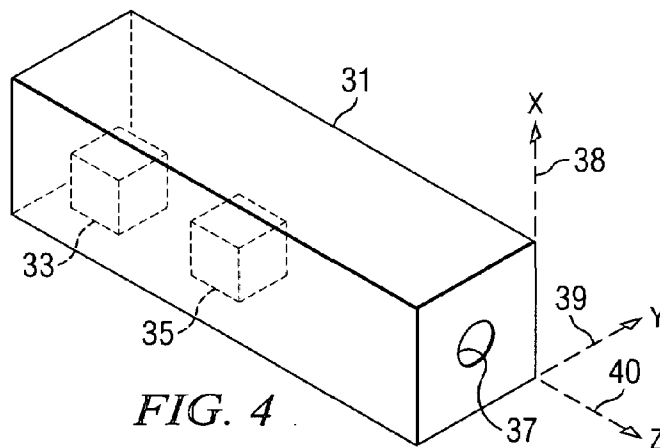


FIG. 4

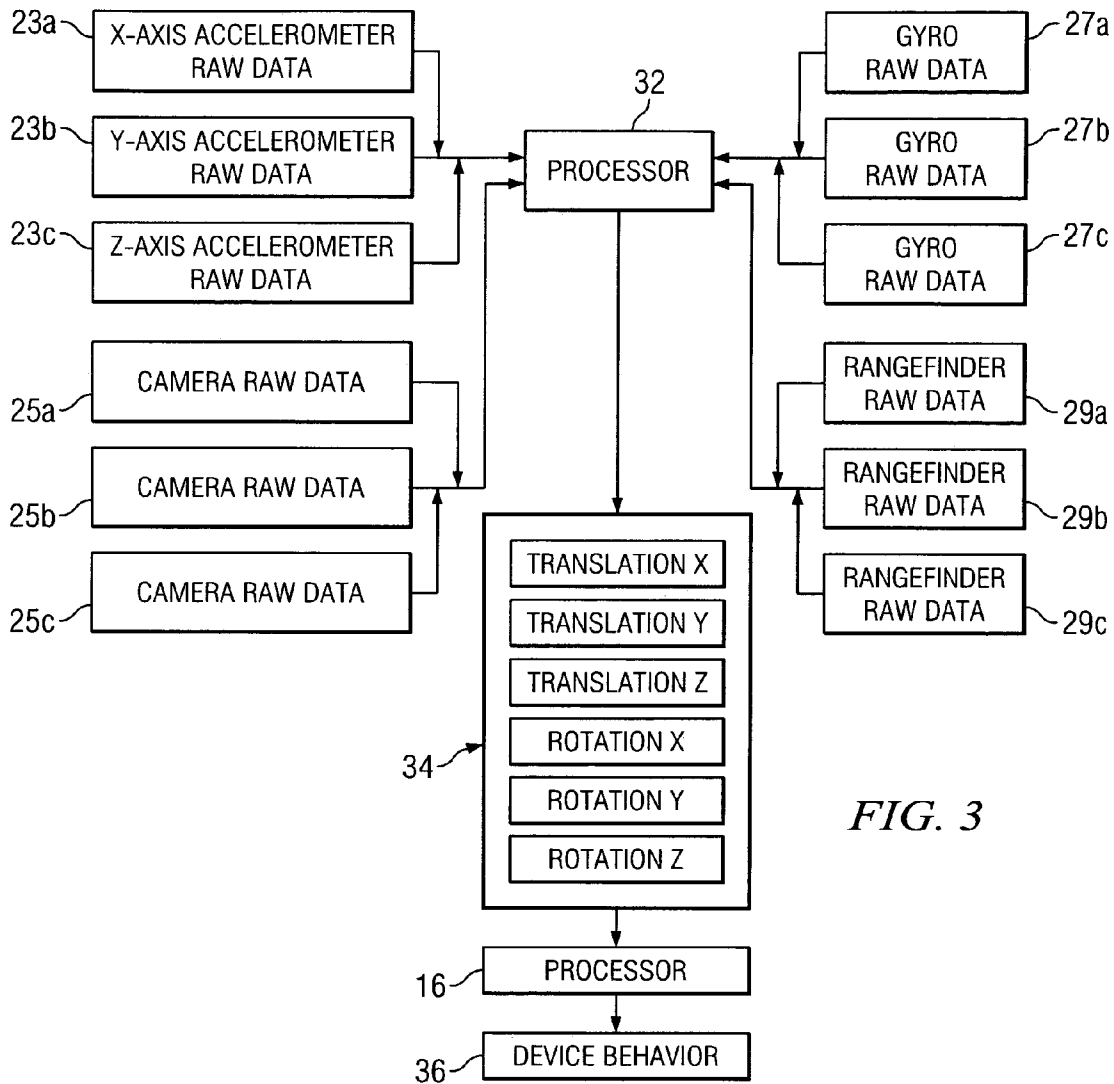


FIG. 3

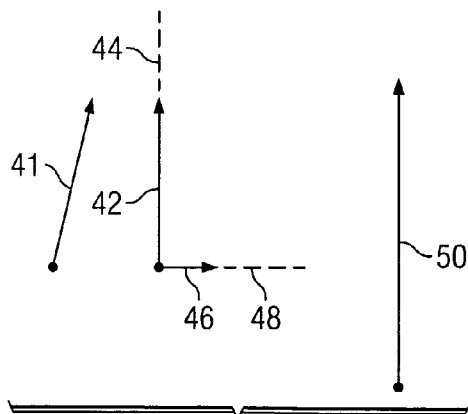
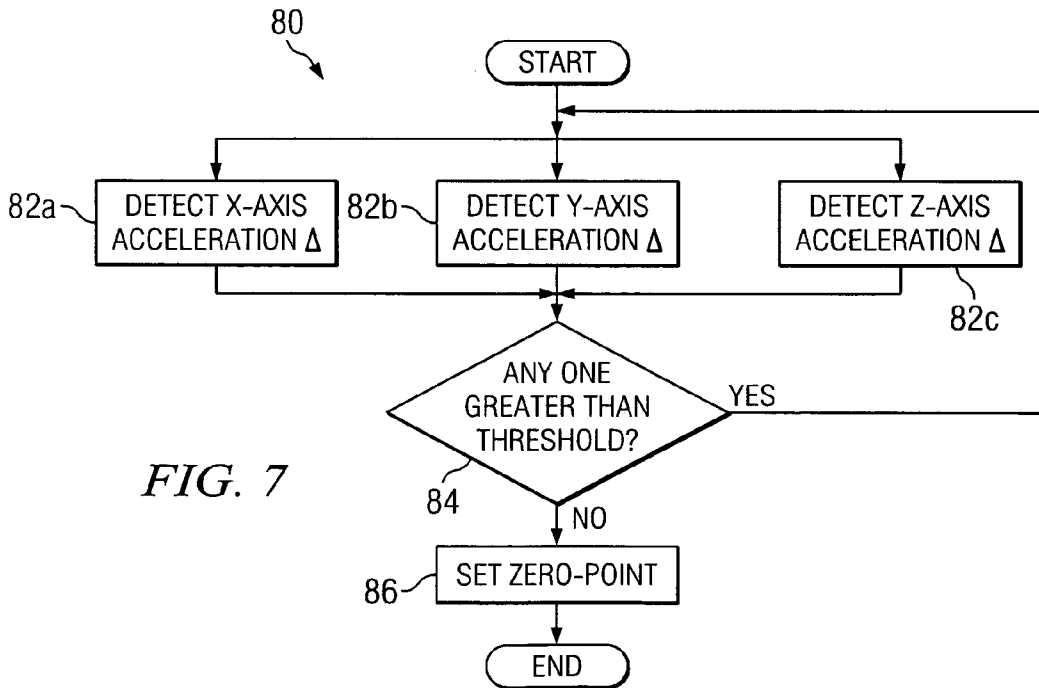
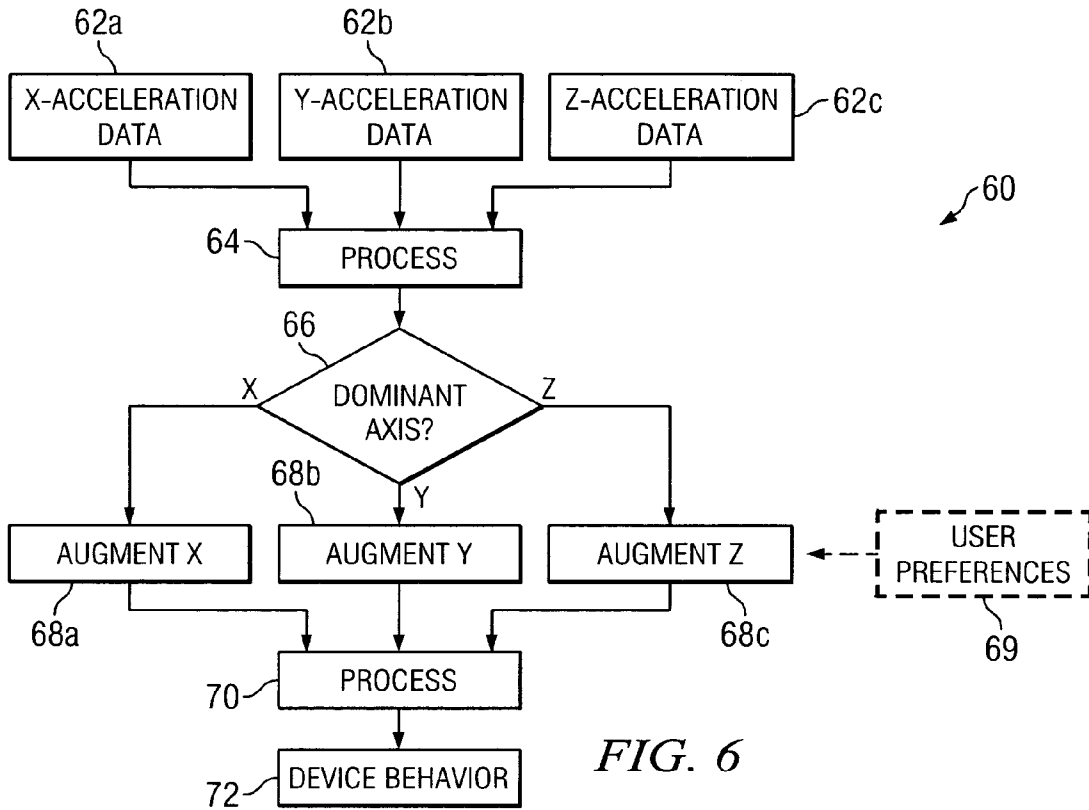


FIG. 5



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