

(12) **United States Patent**
Pryor

(10) **Patent No.:** **US 6,750,848 B1**
(45) **Date of Patent:** **Jun. 15, 2004**

(54) **MORE USEFUL MAN MACHINE INTERFACES AND APPLICATIONS**
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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 0 days.

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(21) Appl. No.: **09/433,297**
(22) Filed: **Nov. 3, 1999**

Related U.S. Application Data

(60) Provisional application No. 60/107,652, filed on Nov. 9, 1998.
(51) **Int. Cl.⁷** **G09G 5/00**
(52) **U.S. Cl.** **345/168; 345/719; 345/863**
(58) **Field of Search** **345/156, 157, 345/158, 168, 700, 719, 863; 340/407.2; 341/22; 400/719**

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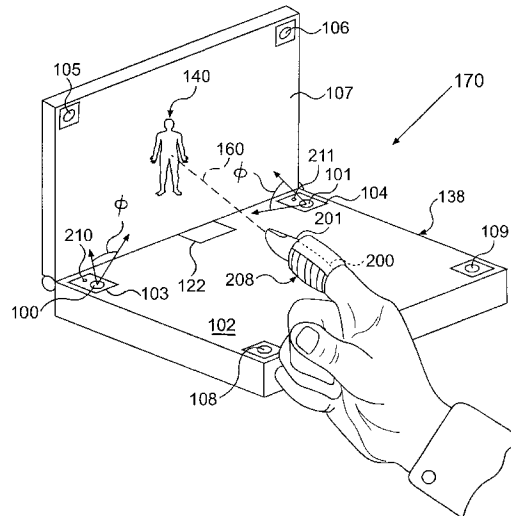
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(57) **ABSTRACT**

The invention is a continuation of earlier applications aimed at providing affordable methods and apparatus for inputting position, attitude(orientation) or other object characteristic data to computers for the purpose of controlling the display thereof. Preferred embodiments utilize electro-optical sensors such as TV cameras, to input data from objects and fingers, and/or other body parts of the user, to laptop, hand held and other computers used for Computer Aided learning, Gaming, 3D graphics, internet commerce and other applications.

22 Claims, 7 Drawing Sheets



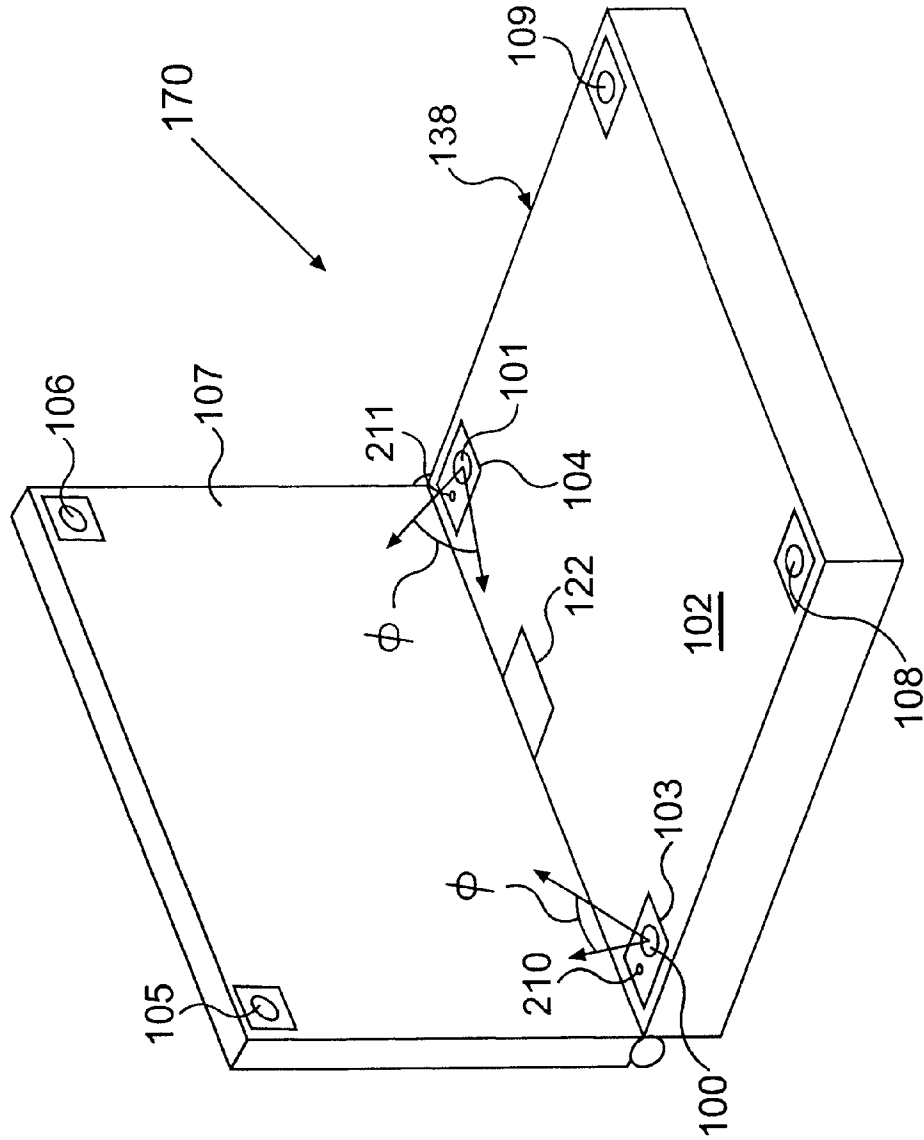


FIG. 1

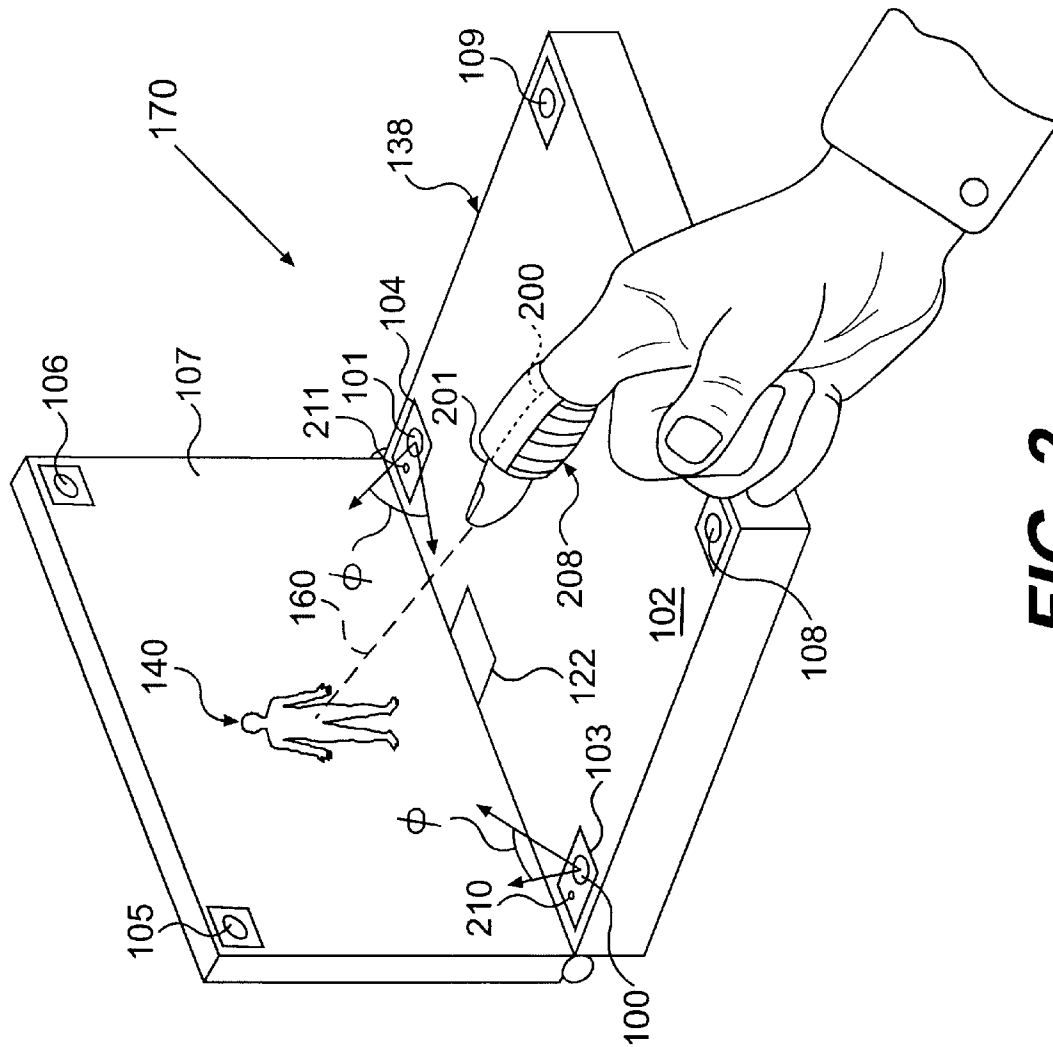


FIG. 2

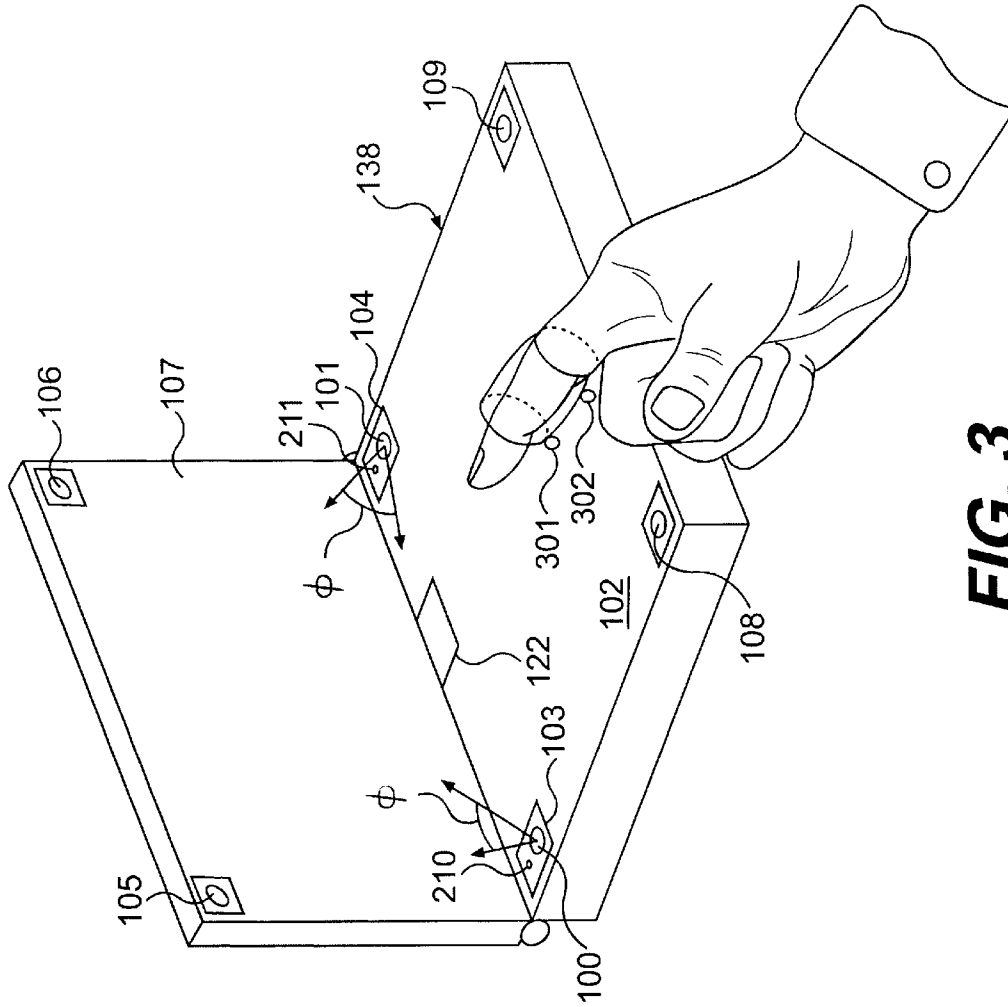


FIG. 3

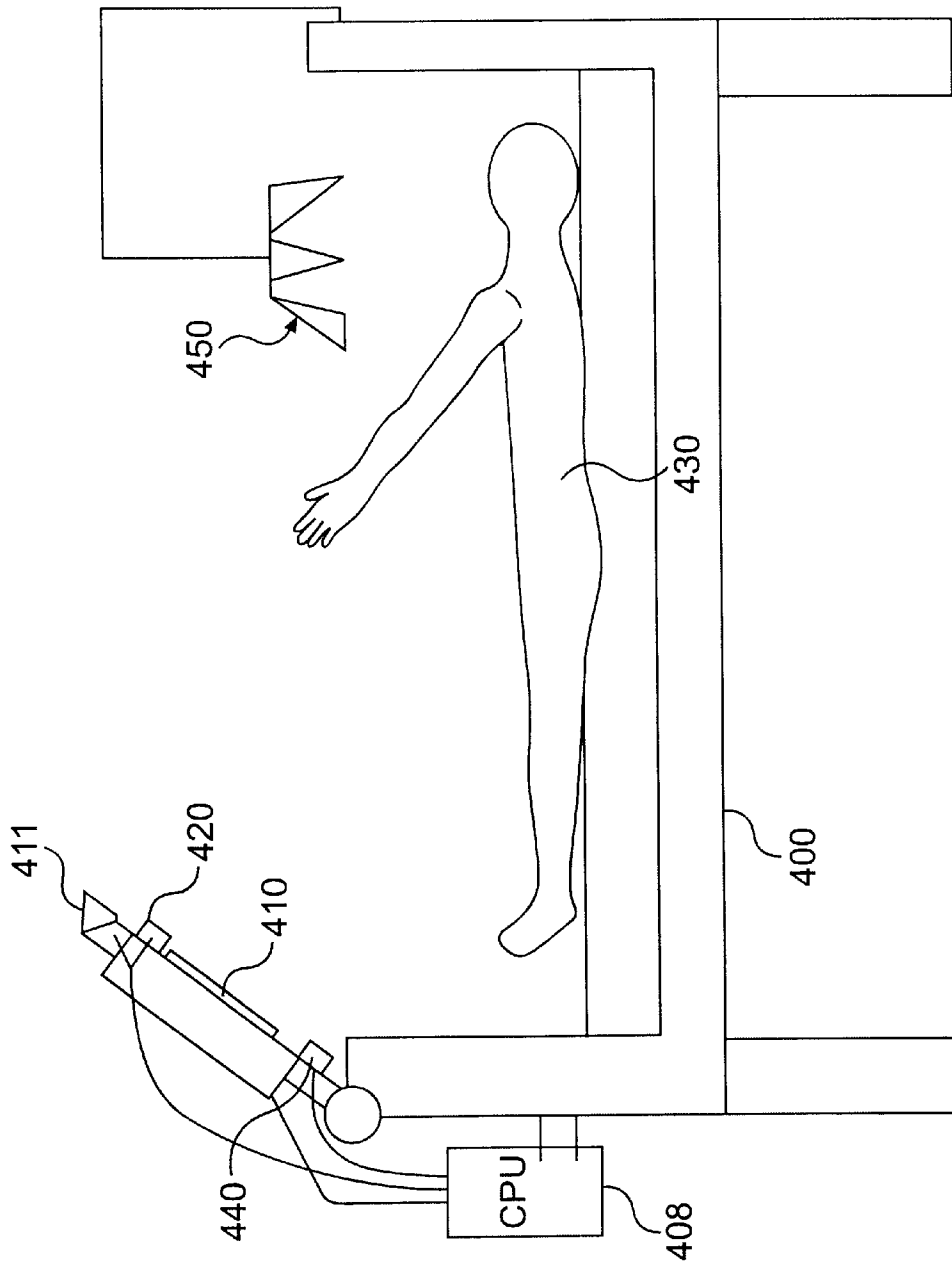


FIG. 4

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