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## (12) United States Patent

#### Pryor

#### (54) MORE USEFUL MAN MACHINE INTERFACES AND APPLICATIONS

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#### **Related U.S. Application Data**

- (63) Continuation of application No. 12/700,055, filed on Feb. 4, 2010, which is a continuation of application No. 10/866,191, filed on Jun. 14, 2004, now abandoned, which is a continuation of application No. 09/433,297, filed on Nov. 3, 1999, now Pat. No. 6,750,848.
- (60) Provisional application No. 60/107,652, filed on Nov. 9, 1998.
- (51) Int. Cl. *H04N 9/47* (2006.01) *H04N 7/18* (2006.01)
- (58) Field of Classification Search NoneSee application file for complete search history.

#### (56) **References Cited**

#### U.S. PATENT DOCUMENTS

3,909,002 A	9/1975	Levy
4,219,847 A	8/1980	Pinkney et al
4,339,798 A	7/1982	Hedges et al.

#### (10) Patent No.: US 8,553,079 B2

#### (45) **Date of Patent:** Oct. 8, 2013

4,631,676 A		12/1986	Pugh		
4,791,589 A		12/1988	Blazo et al.		
4,843,568 A		6/1989	Krueger et al.		
4,908,704 A		3/1990	Fujioka et al.		
4,988,981 A		1/1991	Zimmerman et al.		
5,008,946 A		4/1991	Ando		
5,088,928 A		2/1992	Chan		
5,227,986 A		7/1993	Yokota et al.		
5,249,053 A		9/1993	Jain		
5,297,061 A		3/1994	Dementhon et al.		
5,365,597 A		11/1994	Holeva		
5,376,796 A		12/1994			
5,388,059 A		2/1995	DeMenthon		
5,454,043 A		9/1995	Freeman		
5,459,793 A	*	10/1995	Naoi et al 382/165		
5,491,507 A		2/1996	Umezawa et al.		
5,528,263 A	*	6/1996	Platzker et al 345/156		
5,534,921 A		7/1996	Sawanobori		
5,572,251 A	*	11/1996	Ogawa 348/207.99		
5,581,276 A		12/1996	Cipolla et al.		
5,594,469 A		1/1997	Freeman et al.		
5,616,078 A	*	4/1997	Oh 463/8		
5,624,117 A		4/1997	Ohkubo et al.		
5,781,647 A		7/1998	Fishbine et al.		
5,781,650 A		7/1998	Lobo et al.		
5.808.672 A	*	9/1998	Wakabayashi et al 348/220.1		
5,828,770 A		10/1998	Leis et al.		
5,845,006 A		12/1998	Sumi et al.		
5,853,327 A		12/1998	Gilboa		
5.864.334 A	*	1/1999	Sellers		
2,001,001 11					
(Continued)					

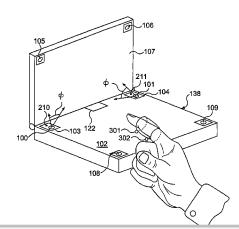
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#### (57) **ABSTRACT**

A method for determining a gesture illuminated by a light source utilizes the light source to provide illumination through a work volume above the light source. A camera is positioned to observe and determine the gesture performed in the work volume.

#### 30 Claims, 7 Drawing Sheets



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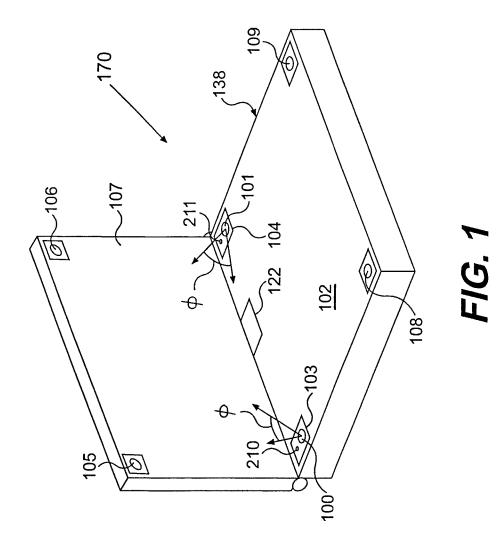
#### (56) **References Cited**

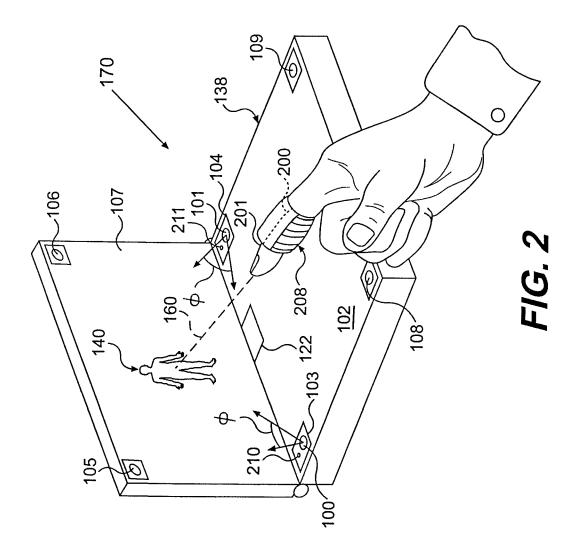
#### U.S. PATENT DOCUMENTS

5,878,174 A	3/1999	Stewart et al.
5,904,484 A	5/1999	Burns
5,926,168 A	7/1999	Fan
5,936,610 A *	8/1999	Endo 345/157
5,940,126 A	8/1999	Kimura
5,982,352 A	11/1999	Pryor
5,999,840 A	12/1999	Grimson et al.
6,052,132 A	4/2000	Christian et al.
6,098,458 A	8/2000	French et al.
6,108,033 A	8/2000	Ito et al.
6,148,100 A	11/2000	Anderson et al.
6,160,899 A	12/2000	Lee et al.
6,204,852 B1	3/2001	Kumar et al.
6,252,598 B1*	6/2001	Segen 715/863

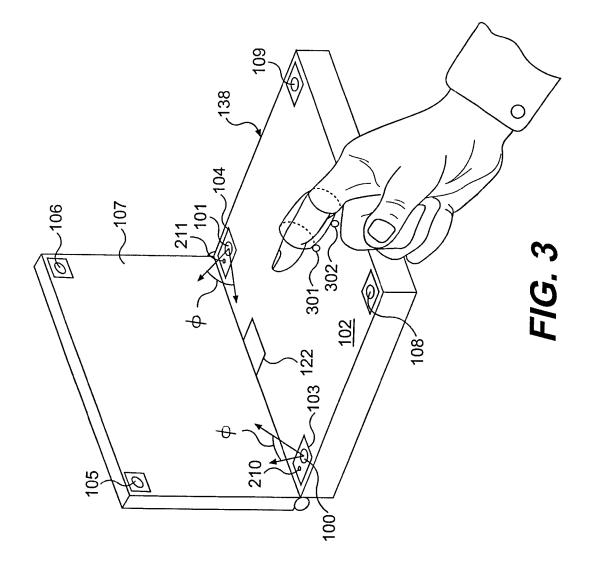
6,342,917	B1	1/2002	Amenta	
6,346,929	B1 *	2/2002	Fukushima et al 345/8	
6,359,647	B1	3/2002	Sengupta et al.	
6,363,160	B1	3/2002	Bradski et al.	
6,373,472	B1	4/2002	Palalau et al.	
6,442,465	B2	8/2002	Breed et al.	
6,508,709	B1	1/2003	Karmarkar	
6,529,617	B1	3/2003	Prokoski	
6,597,817	B1	7/2003	Silverbrook	
6,663,491	B2	12/2003	Watabe et al.	
6,750,848	B1	6/2004	Pryor	
6,775,361	B1	8/2004	Arai et al.	
6,788,336	B1	9/2004	Silverbrook	
6,911,972	B2	6/2005	Brinjes	
7,489,863	B2	2/2009	Lee	

\* cited by examiner





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