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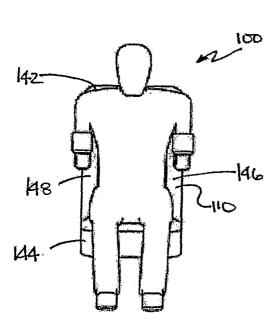
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(57) Abstract: The engagement system of the preferred embodiments functions to engage or support the user in the vehicle. In a first variation, the engagement system 110 supports at least a portion of the weight of the user, engages at least two appendages of the user, and includes at least two of the following: a handbase 120, a footbase 130, and a seat 140. In another variation, the engagement system 110 engages the torso of the user and includes at least two of the following: a seat back 142, a seat bottom 144, and side bolsters 146 and 148. In another variation, the engagement system 110 also includes a handbase 120, such as a steering wheel.

FIGURE 5A

International application No.

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١.	CLASSIFICATION OF SUBJECT MATTER	
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A. CLASSIFICATION OF SUBJECT MATTER IPC: B60K 26/00(2006.01)							
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Minimum documentation searched (classification system followed by classification symbols) U.S.: 180/315,326,329;701/1							
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Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)							
C. D	OCUMENTS CONSIDERED TO BE RELEVANT						
	Category * Citation of document, with indication, where appropriate, of the relevant passages			Relevant to claim No.			
X	US 5,792,031 (Alton et al.) 11 Aug. 1998 (11.08.199	8) Figs. 1-	5, Col. 9 and 10.	1-2, 6, 11-13			
Y	Y			3-5, 7-10, and 14-20			
Y	Y US 4,632,408 Olpp et al. 30 Dec. 1986 (30.12.1986) Figs. 1-11			3-5, 7-10, and 14-20			
Y	Y US 6,032,299 (Welsh) 7 Mar. 2000 (07.03.2000)		8				
A	A US 5,971,091 (Kamen et al.) 26 Oct. 1999 (26.10.199		, Lines 16-22.	1-20			
A	A US 6,471,586 B1 (Aiki et al.) 29 Oct. 2002 (29.10.2002) Fig. 1			1-20			
Further documents are listed in the continuation of Box C.			See patent family annex.				
*	* Special categories of cited documents: "A" document defining the general state of the art which is not considered to be of particular relevance "E" earlier application or patent published on or after the international filing date		later document published after the international filing date or priority date and not in conflict with the application but cited to understand the				
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"P" document published prior to the international filing date but later than the "&"			document member of the same patent f	àmily			

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