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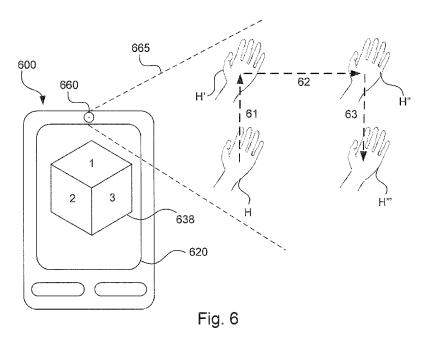
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(54) Title: DEVICE AND METHOD WHERE A GESTURE BASED INPUT IS USED TO GET ACCESS TO THE DEVICE



(57) Abstract: A computing device arranged for tracking an object in an image stream provided by a camera, said computing device comprising a memory and a controller, wherein said controller is configured to: track at least one object, identify a gesture, wherein said gesture is defined by said tracked at least one object in free space in front of said camera, retrieve an associated command, and execute said associated command, wherein said associated command is a command for controlling access to the computation device...



AMENDED CLAIMS received by the International Bureau on 7 April 2014 (07.04.2014)

CLAIMS

1. A computing device (100, 200) arranged for tracking an object (H, H1, H2) in an image stream (265) provided by a camera (160, 260, 560, 660, 860, 960), said computing device (100, 200) comprising a memory (240) and a controller (210), wherein said controller (210) is configured to:

detect a startup trigger;

detect the surrounding light level and to determine whether there is enough light to track an object and if so activate the camera (960);

track at least one object (H, H1, H2);

identify a gesture, wherein said gesture is defined by said tracked at least one object moving in free space in front of said camera (160, 260, 560, 660, 860, 960);

retrieve an associated command; and

execute said associated command, wherein said associated command is a command for controlling access to the computation device (100, 200).

- 2. The computing device (100, 200) of claim 1, wherein said controller (210) is further configured to detect said startup trigger by detecting that said computation device (100, 200) is moved to an upright position.
- 3. The computing device (100, 200) of any of claims 1 to 2, wherein said controller (210) is further configured to determine whether there are any objects to be tracked discernible in front of said camera (960), and if not, deactivate said camera (960).
- 4. The computing device (100, 200) of claim 1, further comprising a light sensor (270) and wherein said controller (210) is further configured to detect the surrounding light level by receiving light data from said light sensor (270).
- 5. The computing device (100, 200) of any of claims 1-4, wherein said controller (210) is further configured to display a visual indication (638, 71-74, 838) according to movements (51-53, 61-63, 81, 82) tracked for said at least one object to be tracked (H1, H2, H).

- 6. The computing device (100, 200) of claim 5, wherein said visual indication has identifiable sides and which sides are to be arranged in a specific manner to complete said gesture.
- 7. The computing device (100, 200) of claim 5 or 6, wherein said controller (210) is further configured to display said visual indication in a varying alignment when the tracking is activated.
- 8. The computing device (100, 200) of any of claims 5 to 7, wherein said controller (210) is further configured to display said visual indication as a cube.
- 9. The computing device (100, 200) of any of claims 1 to 8, wherein said controller (210) is configured to track two or more objects (H1, H2) and identify a gesture based on at least one movement (81, 82) performed by each tracked object (H1, H2).
- 10. The computing device (100, 200) of claims 8 and 9, wherein said visual indication is a multipart body (838).
- 11. The computing device (100, 200) of any of claims 1 to 10, wherein said gesture represents an unlocking gesture and said command is an unlocking command allowing access to the computation device (100, 200).
- 12. A method for use in a computing device (100, 200) arranged for tracking an object (H, H1, H2) in an image stream (265) provided by a camera (160, 260, 560, 660, 860, 960), said method comprising:

detecting a startup trigger;

detecting the surrounding light level and to determine whether there is enough light to track an object and if so activate the camera (960);

tracking at least one object (H, H1, H2);

identifying a gesture, wherein said gesture is defined by said tracked at least one object moving in free space in front of said camera (160, 260, 560, 660, 860, 960);

retrieving an associated command; and

executing said associated command, wherein said associated command is a command for controlling access to the computation device (100, 200).

- 13. A computer readable storage medium (30) encoded with instructions (31) that, when loaded and executed on a processor, causes the method according to claim 12 to be performed.
- 14. A computing device according to any of claims 1 to 11, wherein said computing device is a mobile communications terminal.
- 15. A computing device according to any of claims 1 to 11, wherein said computing device is an internet tablet or a laptop computer.
- 16. A computing device according to any of claims 1 to 11, wherein said computing device is a game console.