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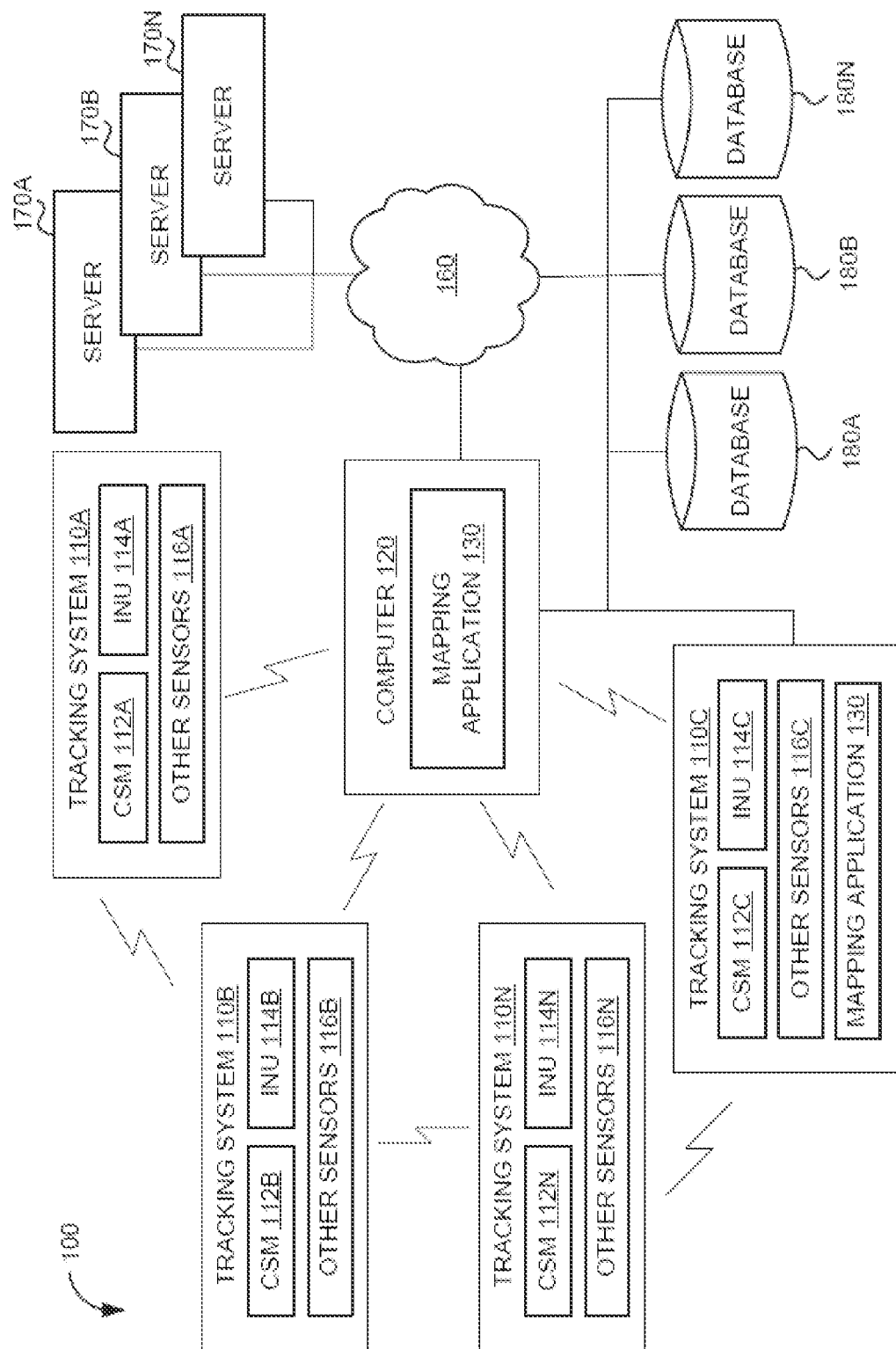


FIG. 1

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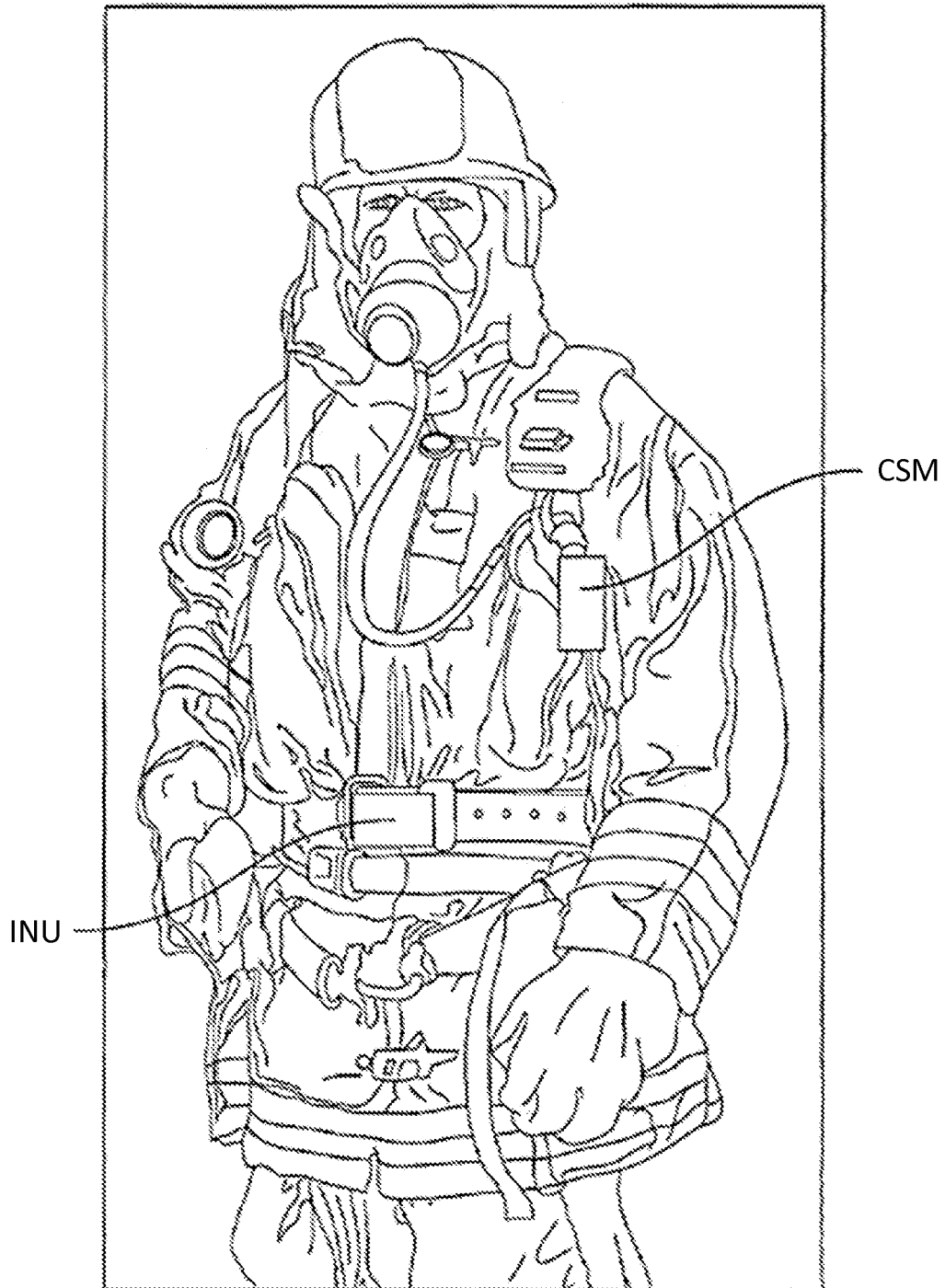
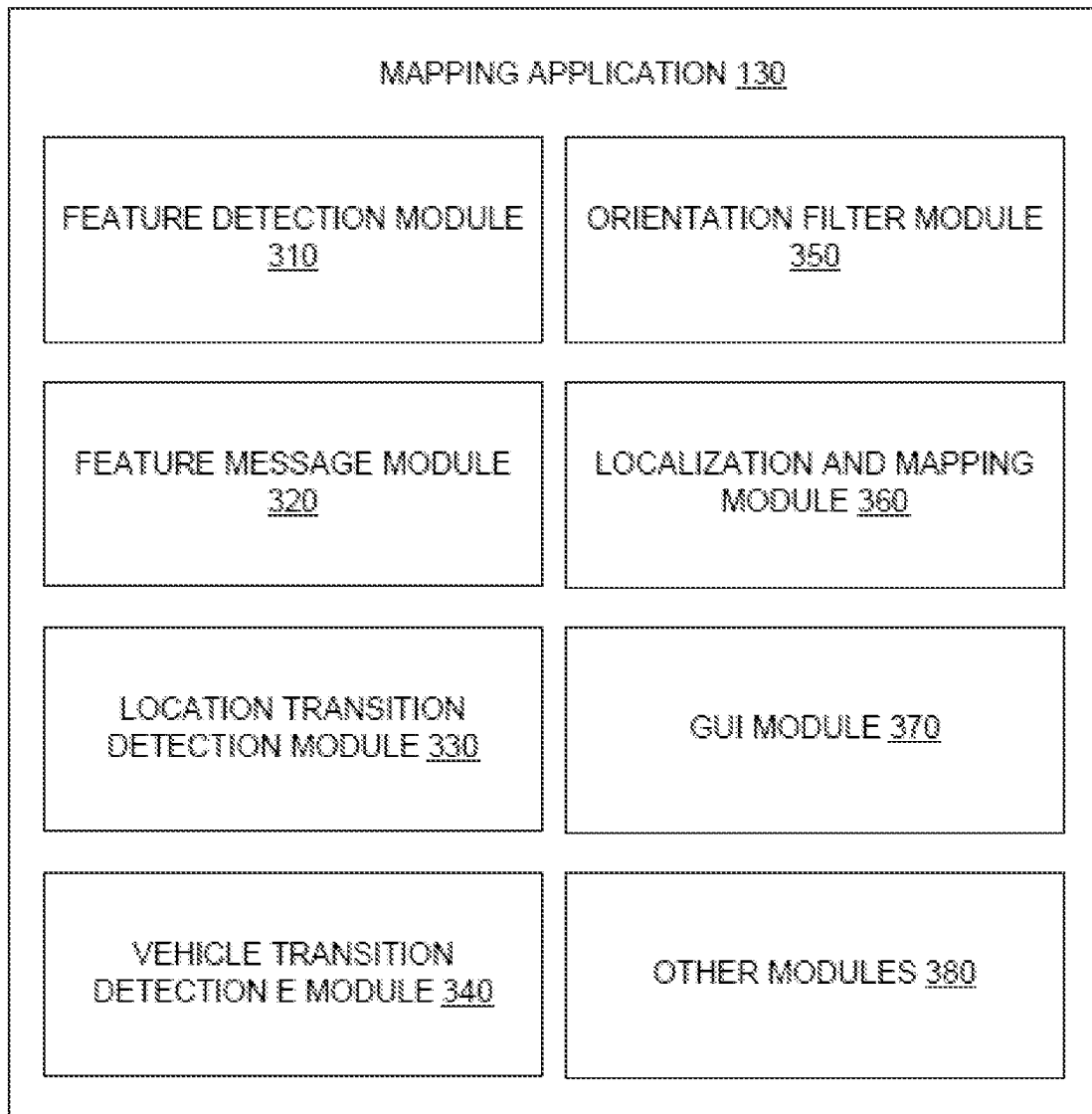


FIG. 2

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**FIG. 3**

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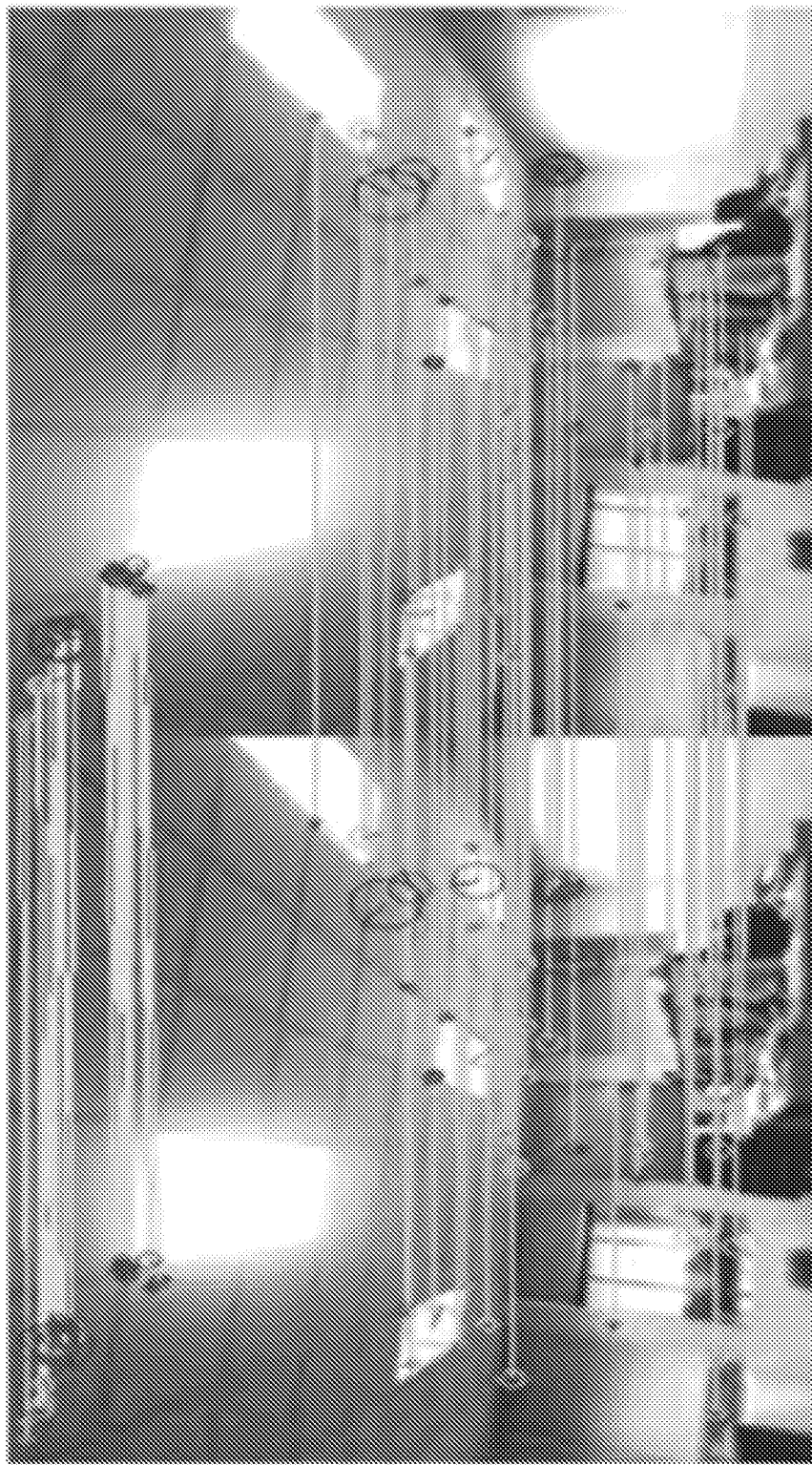


FIG. 4

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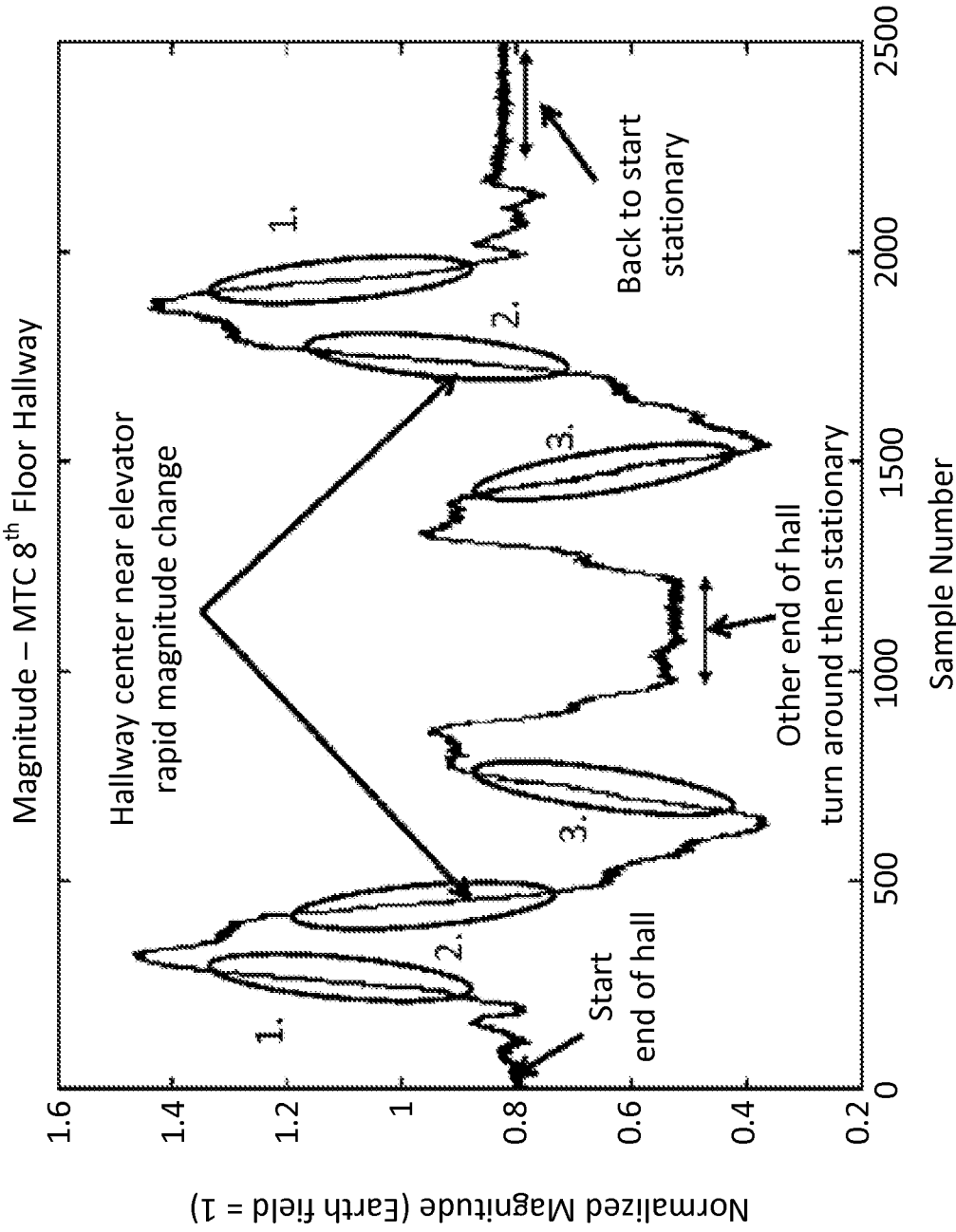


FIG. 5

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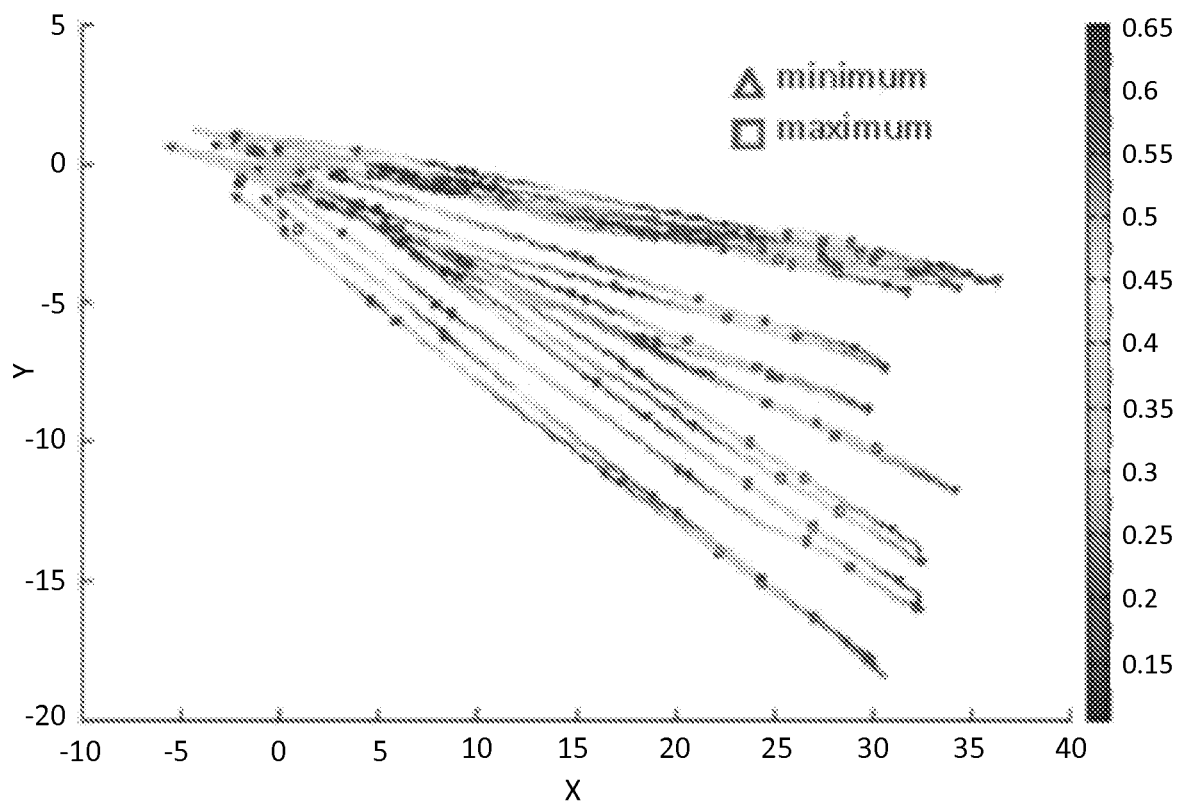


FIG. 6

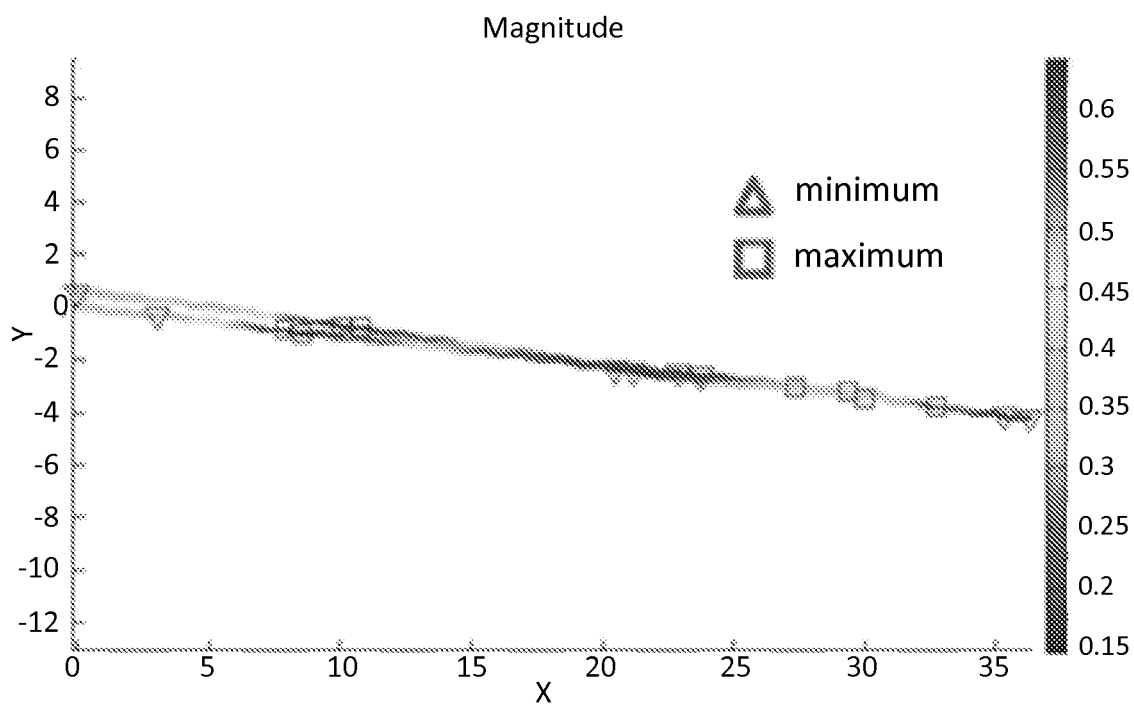
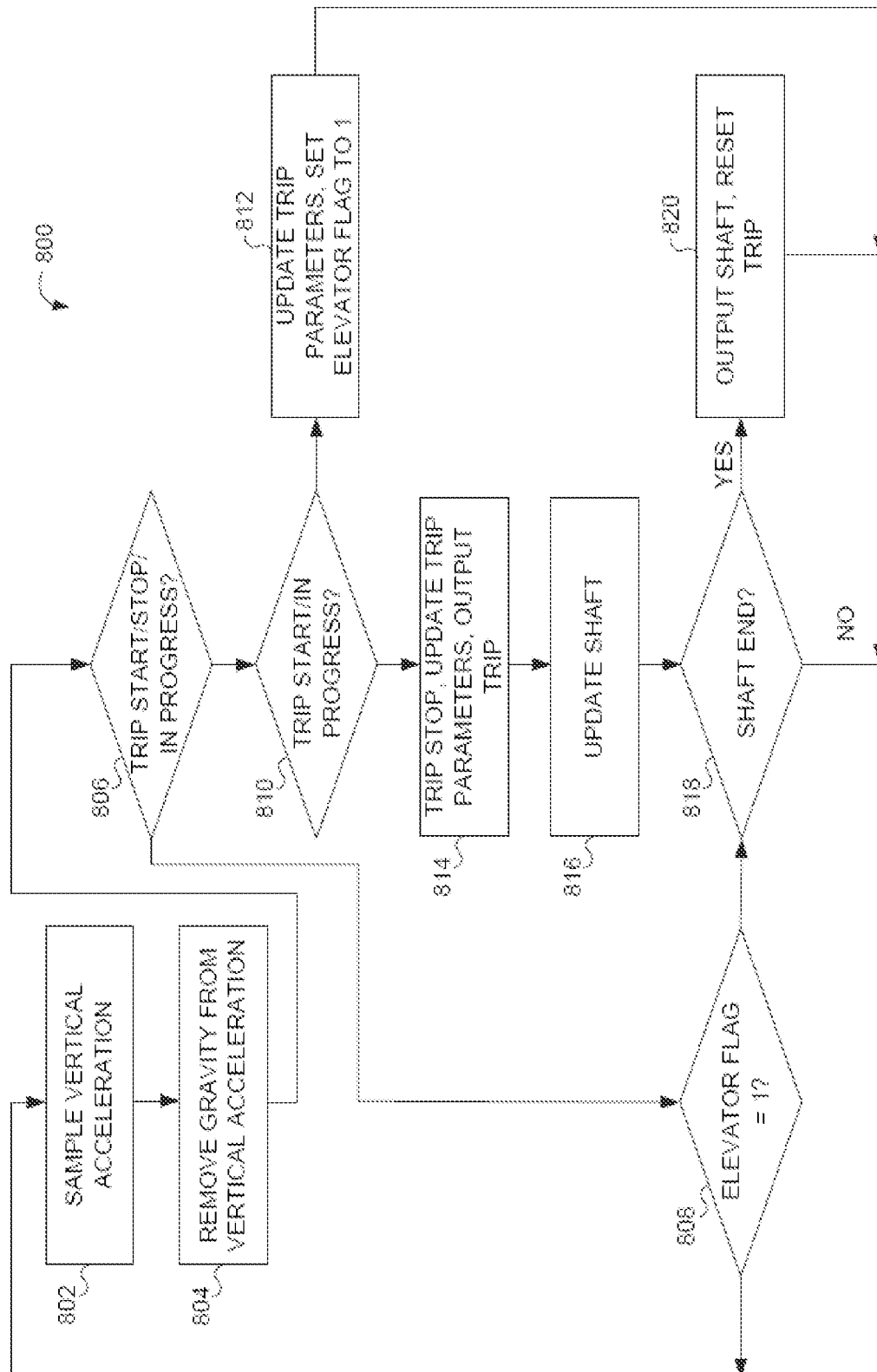


FIG. 7

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**FIG. 8**

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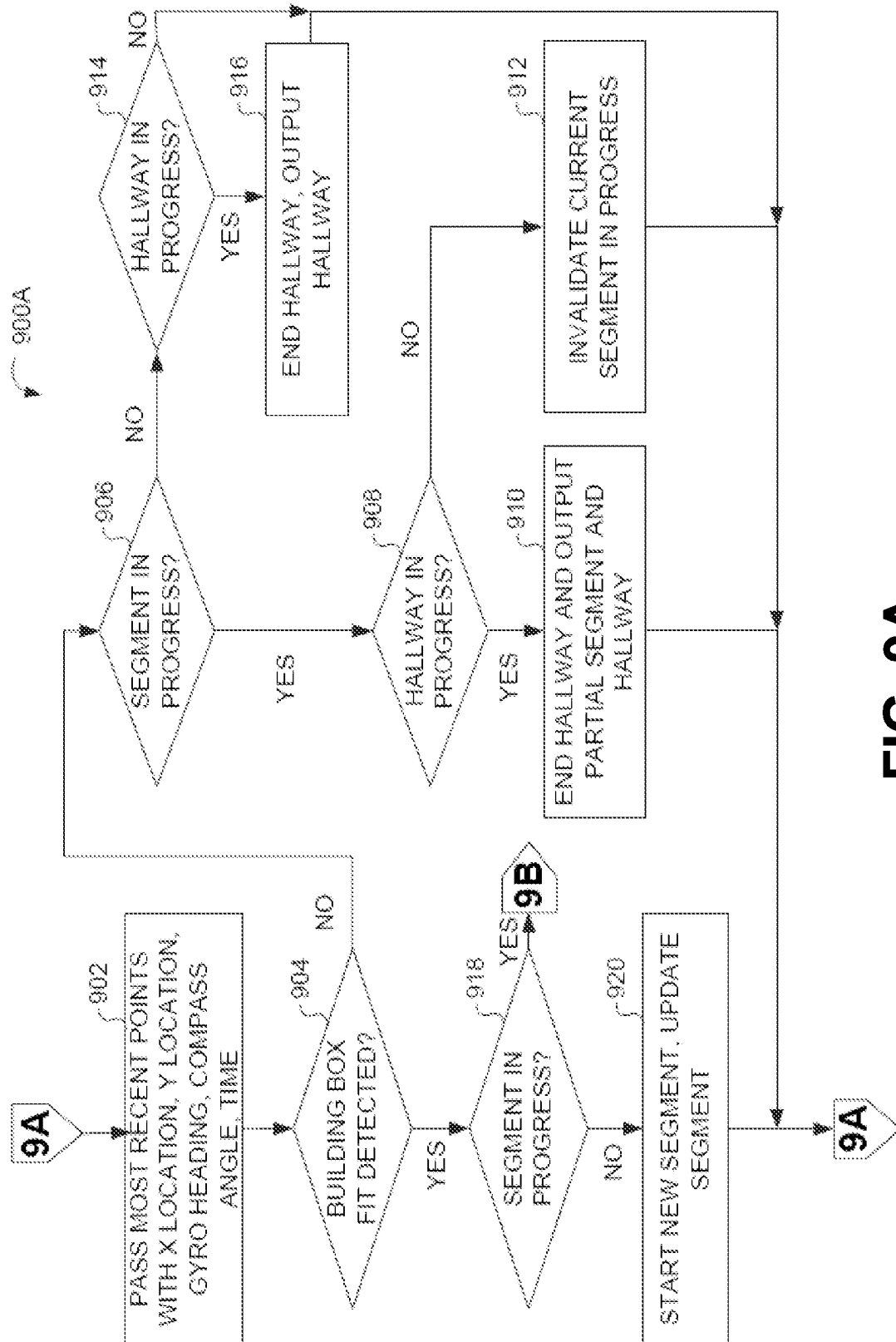


FIG. 9A

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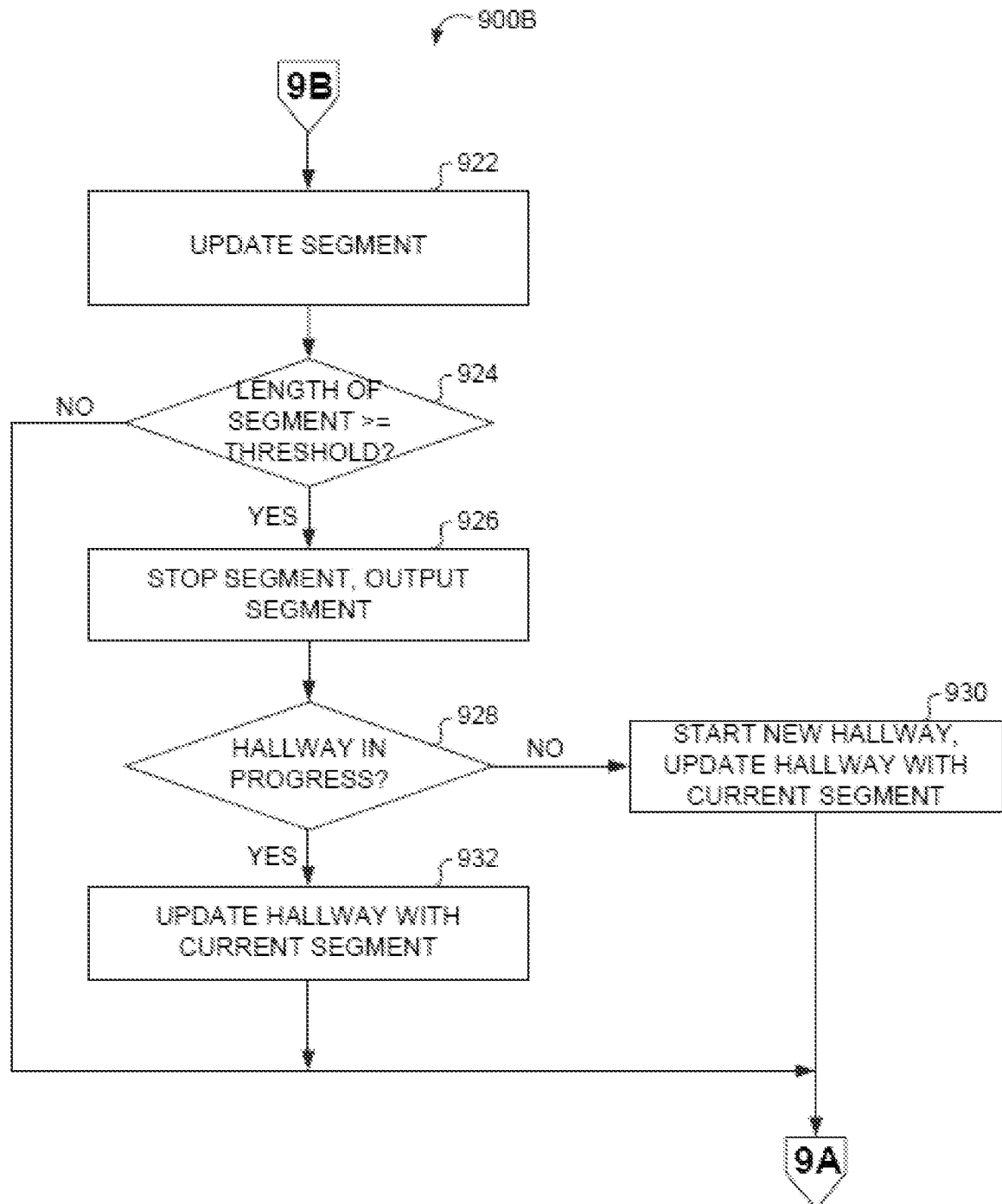
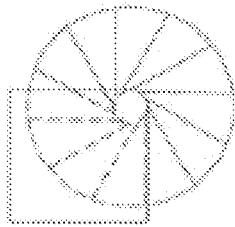
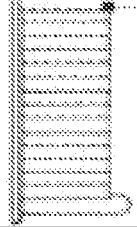


FIG. 9B

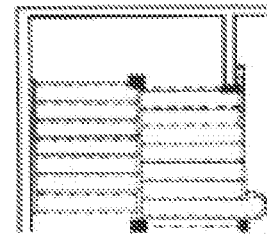
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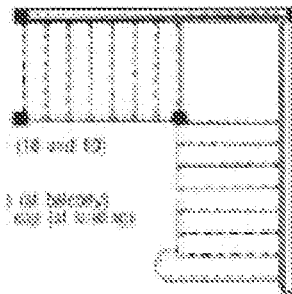
Radial Stairwell



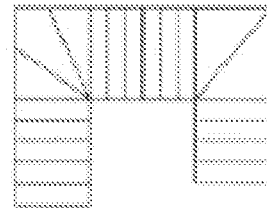
Straight Stairwell



U-Shape Stairwell



L-Shape Stairwell



Winder Stairwell



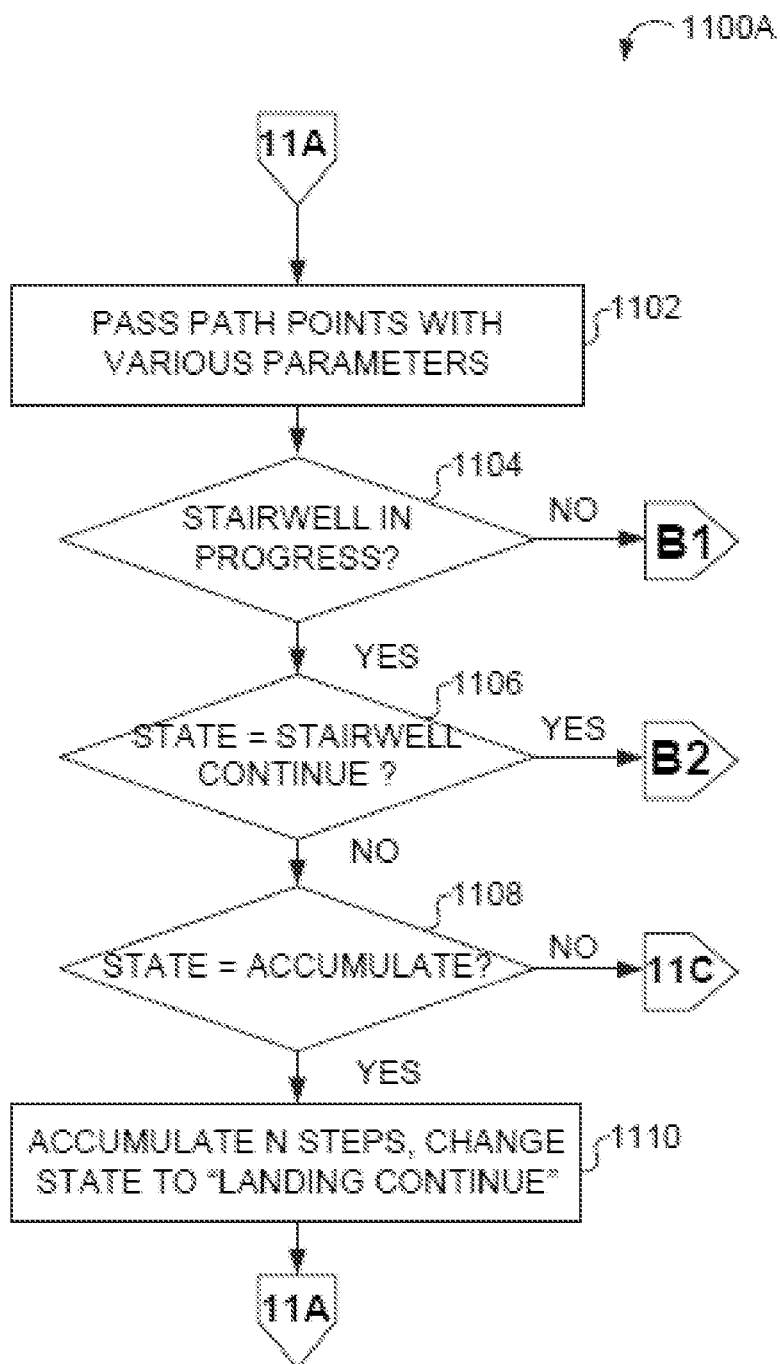
Counterclockwise Up



Clockwise Up

FIG. 10

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**FIG. 11A**

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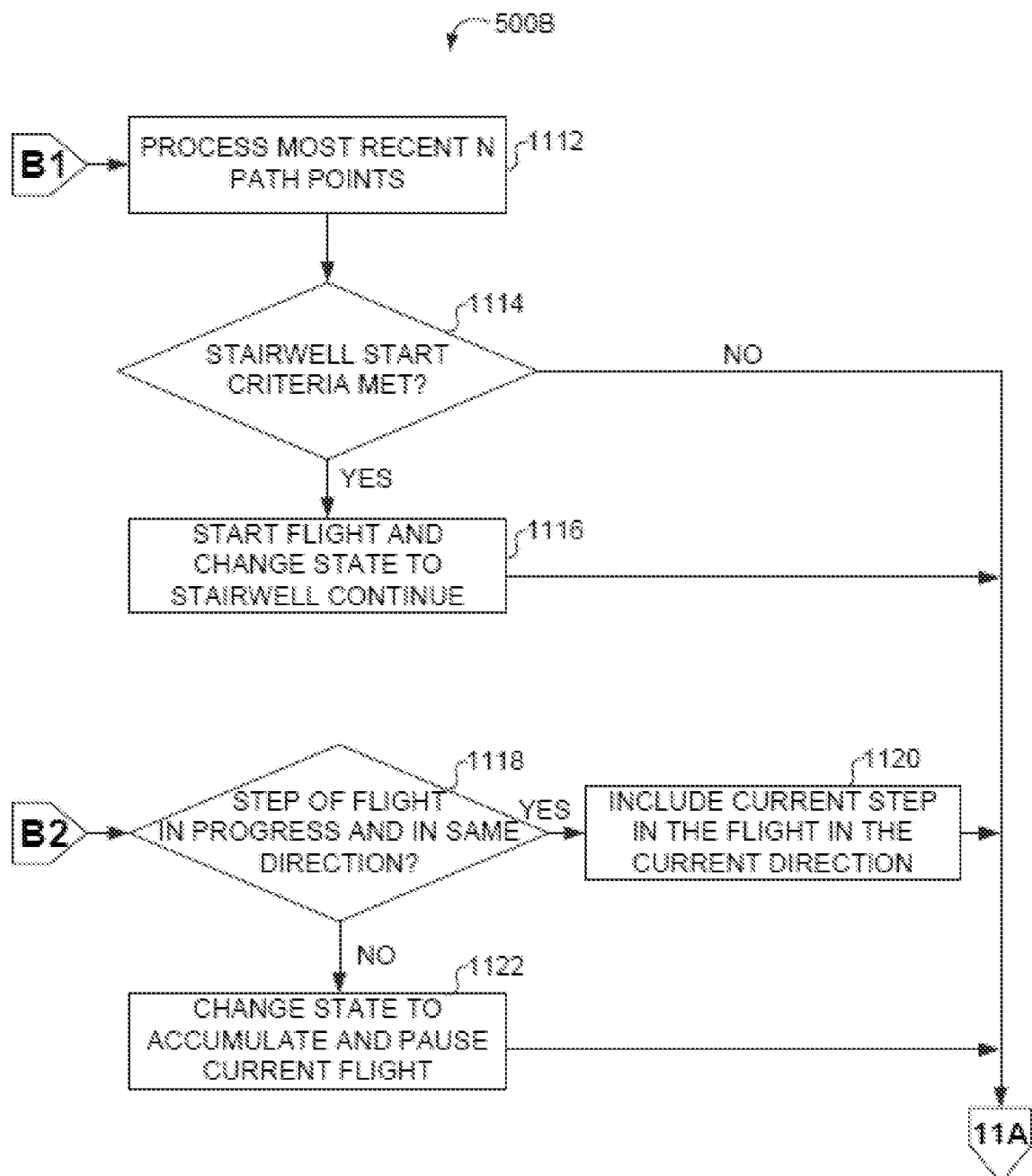


FIG. 11B

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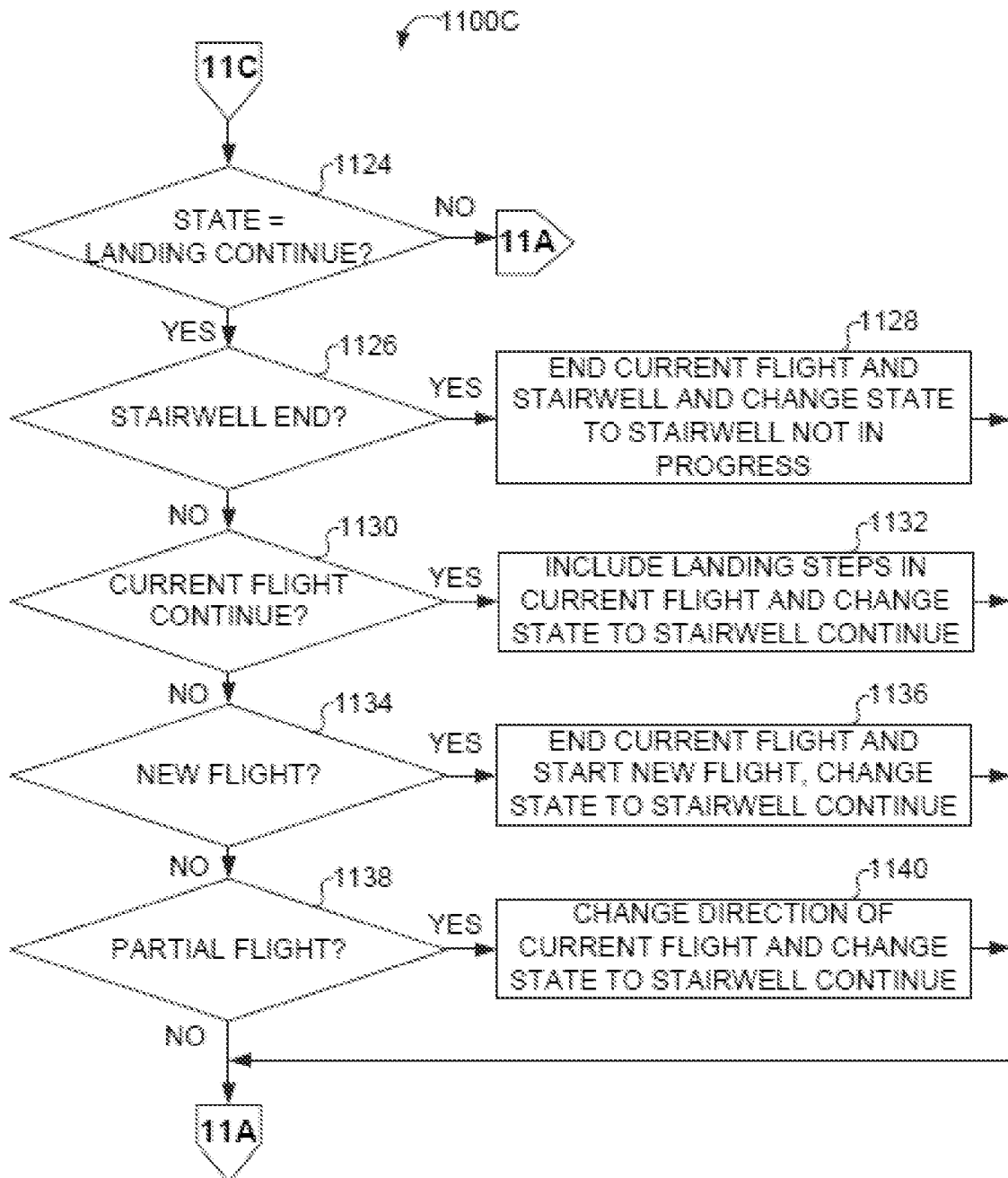
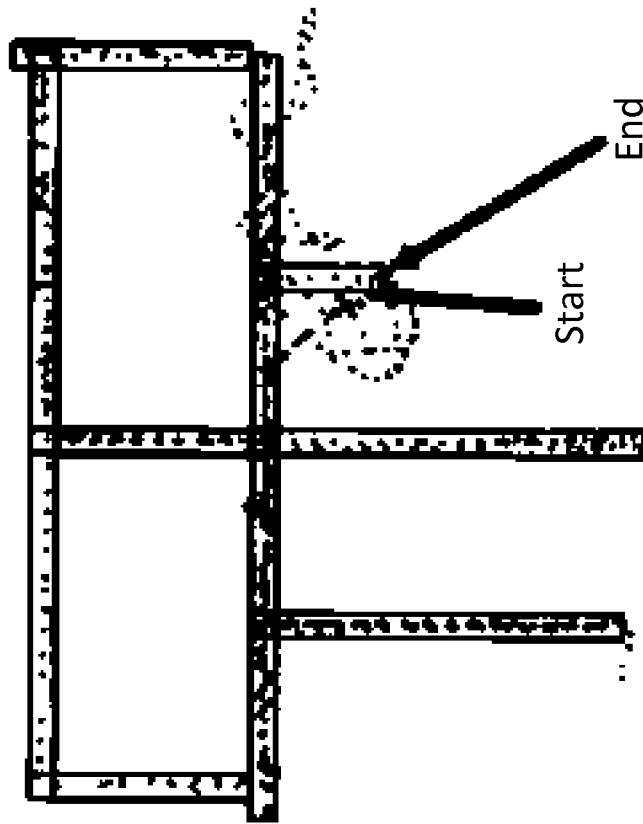


FIG. 11C

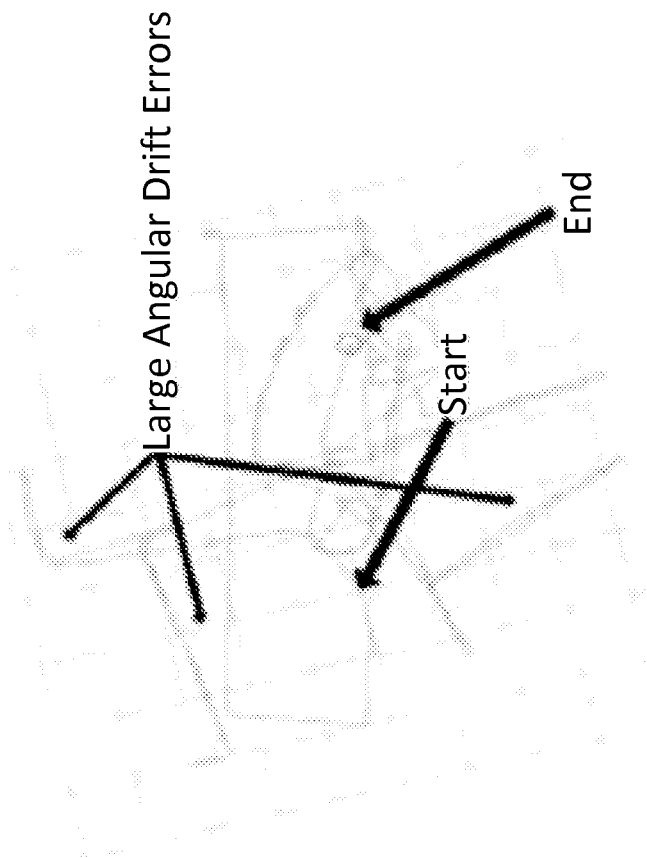
Error Compensation using Map Building Routines



Start to End error of <3m

FIG. 12B

Single Gyro Inertial Path without Drift Comensation



Start to End error of ~48m

FIG. 12A

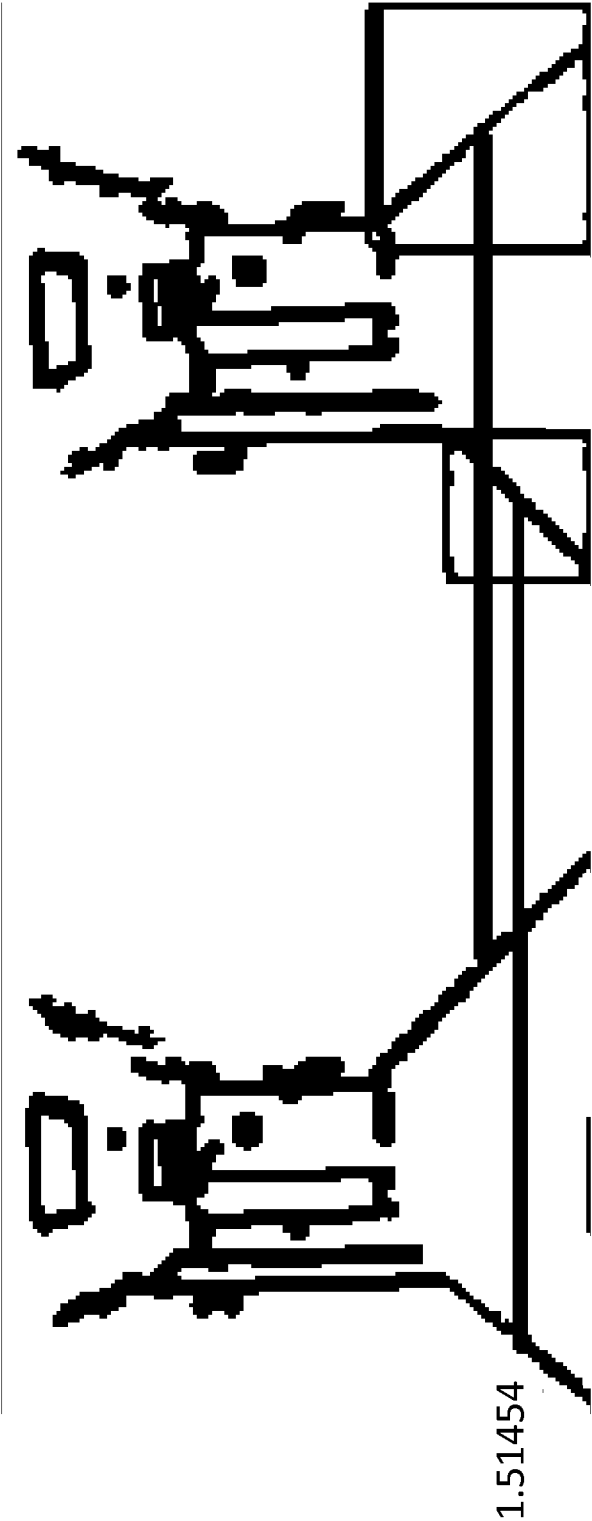


FIG. 13

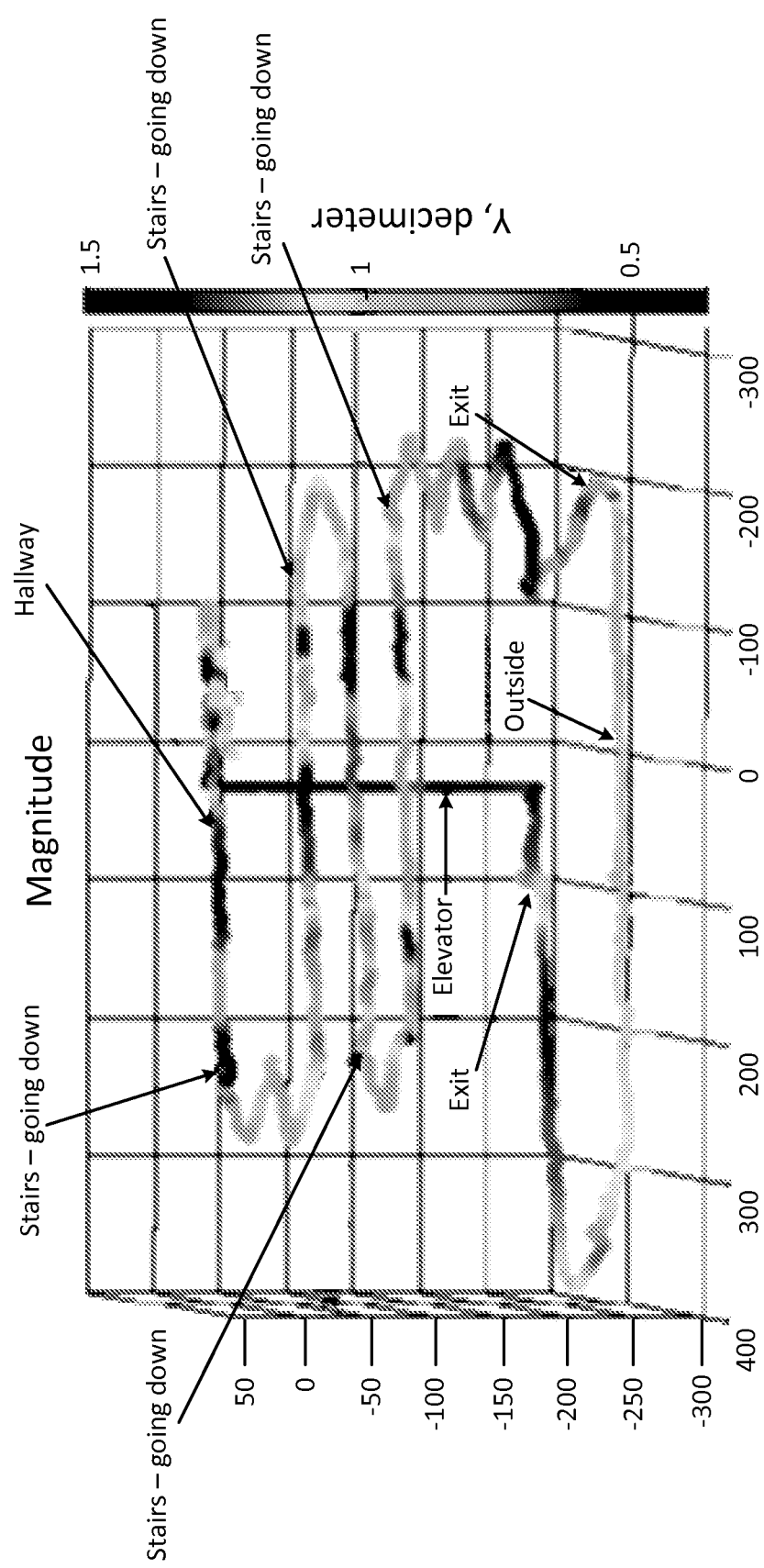


FIG. 14

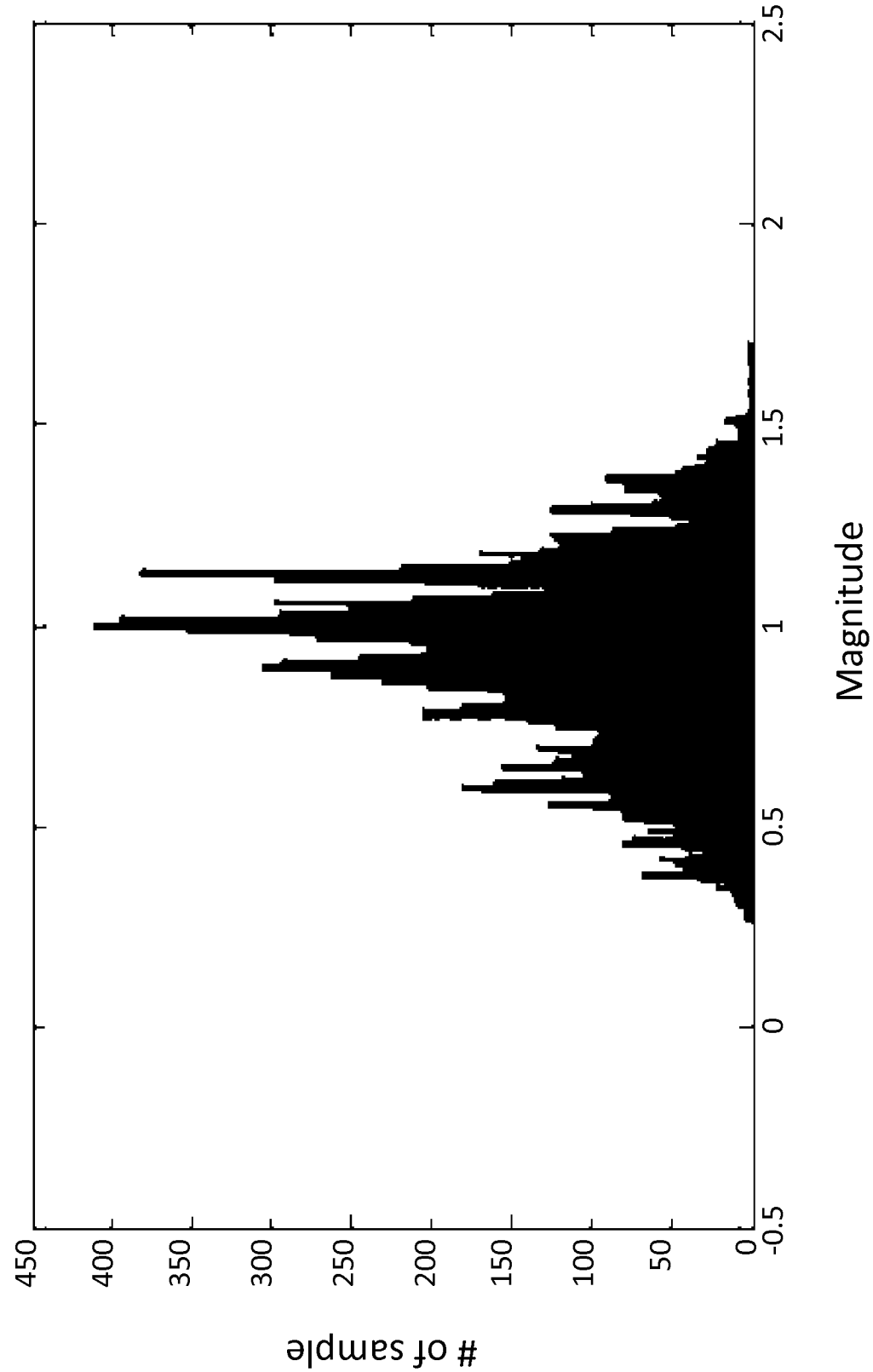


FIG. 15

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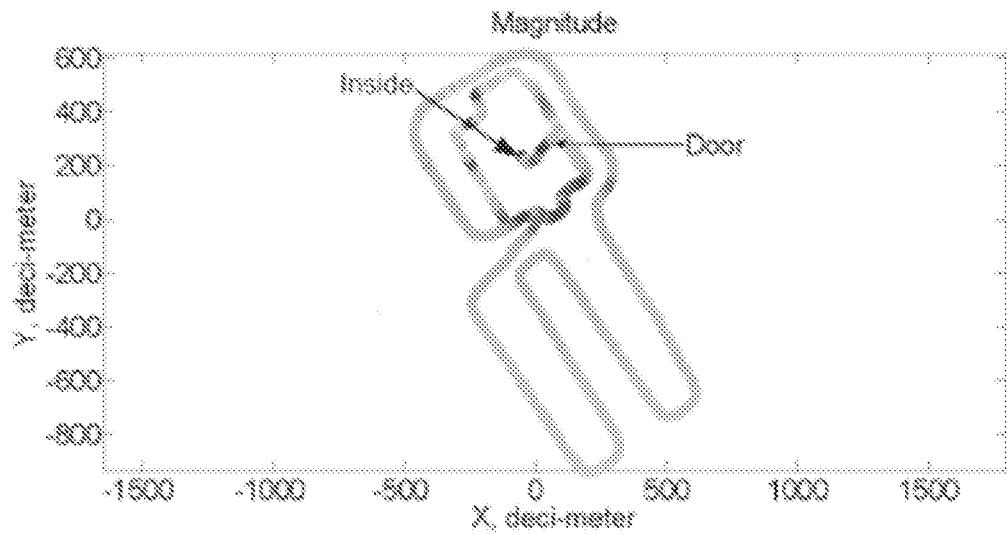


FIG. 16

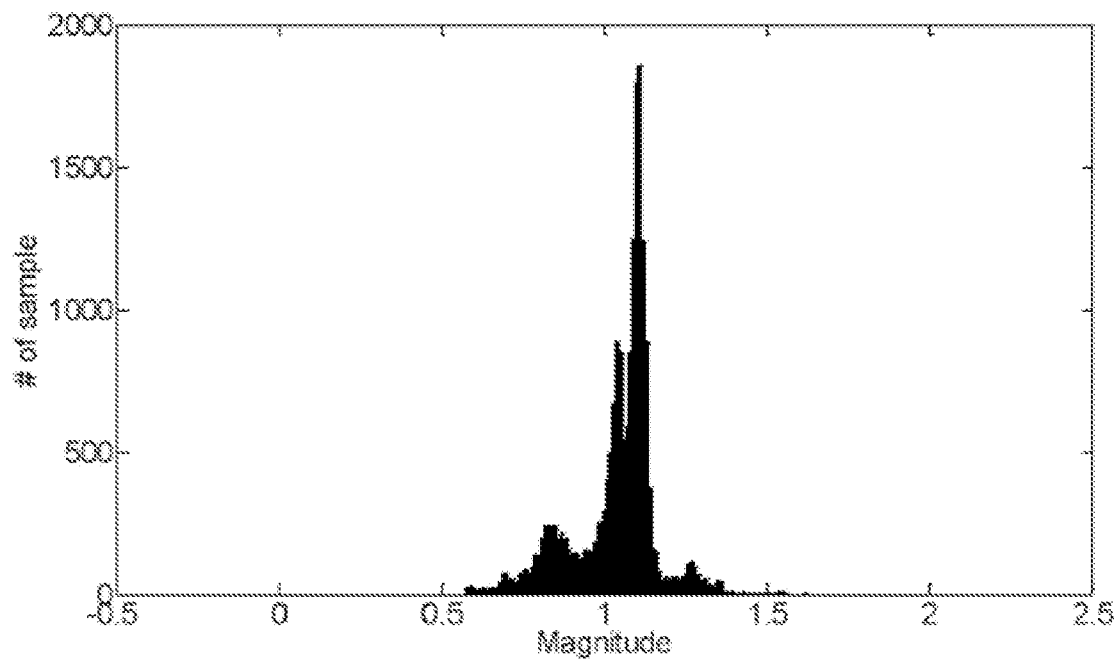
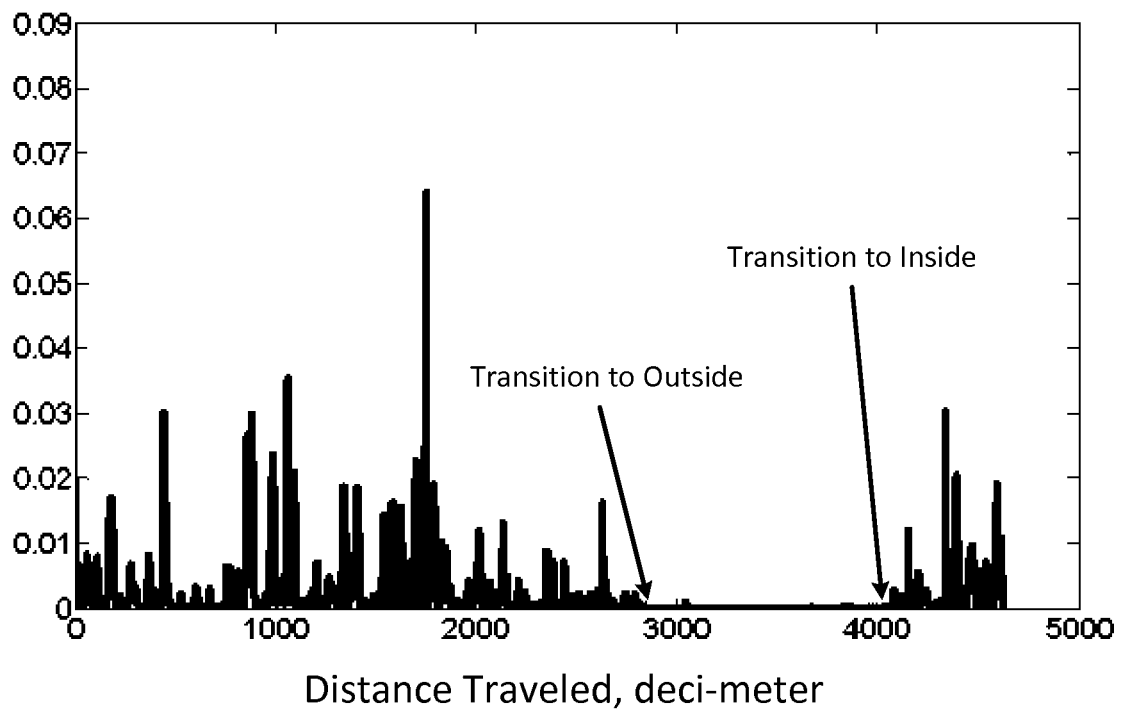
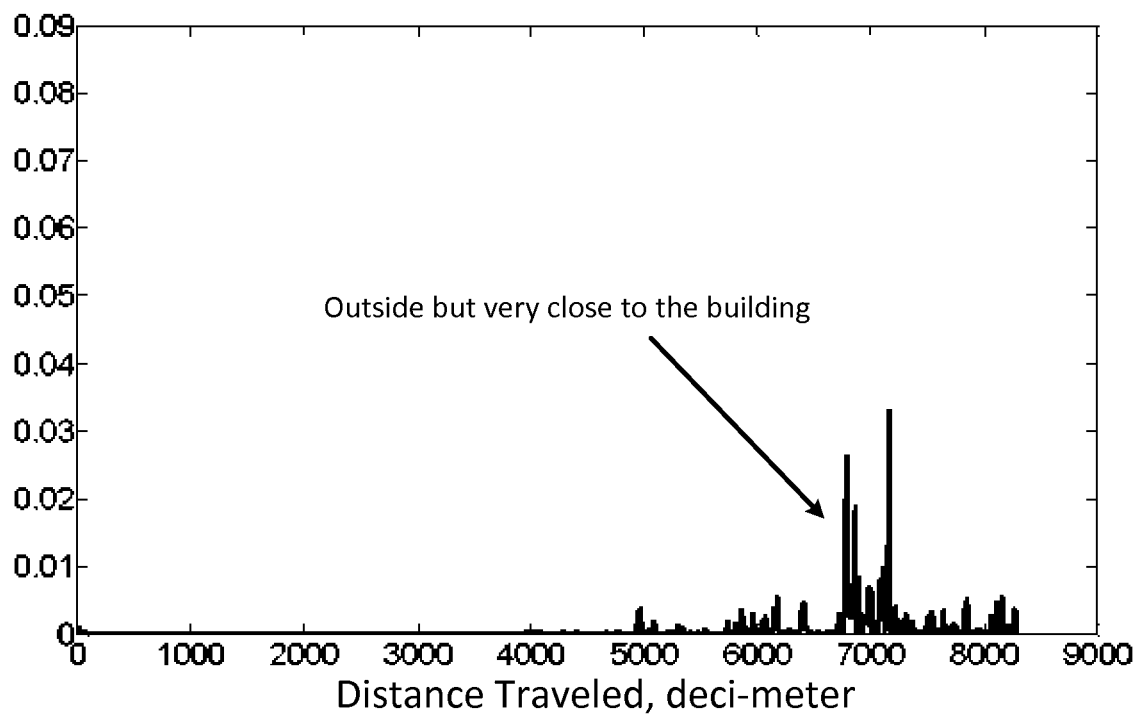


FIG. 17

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**FIG. 18****FIG. 19**

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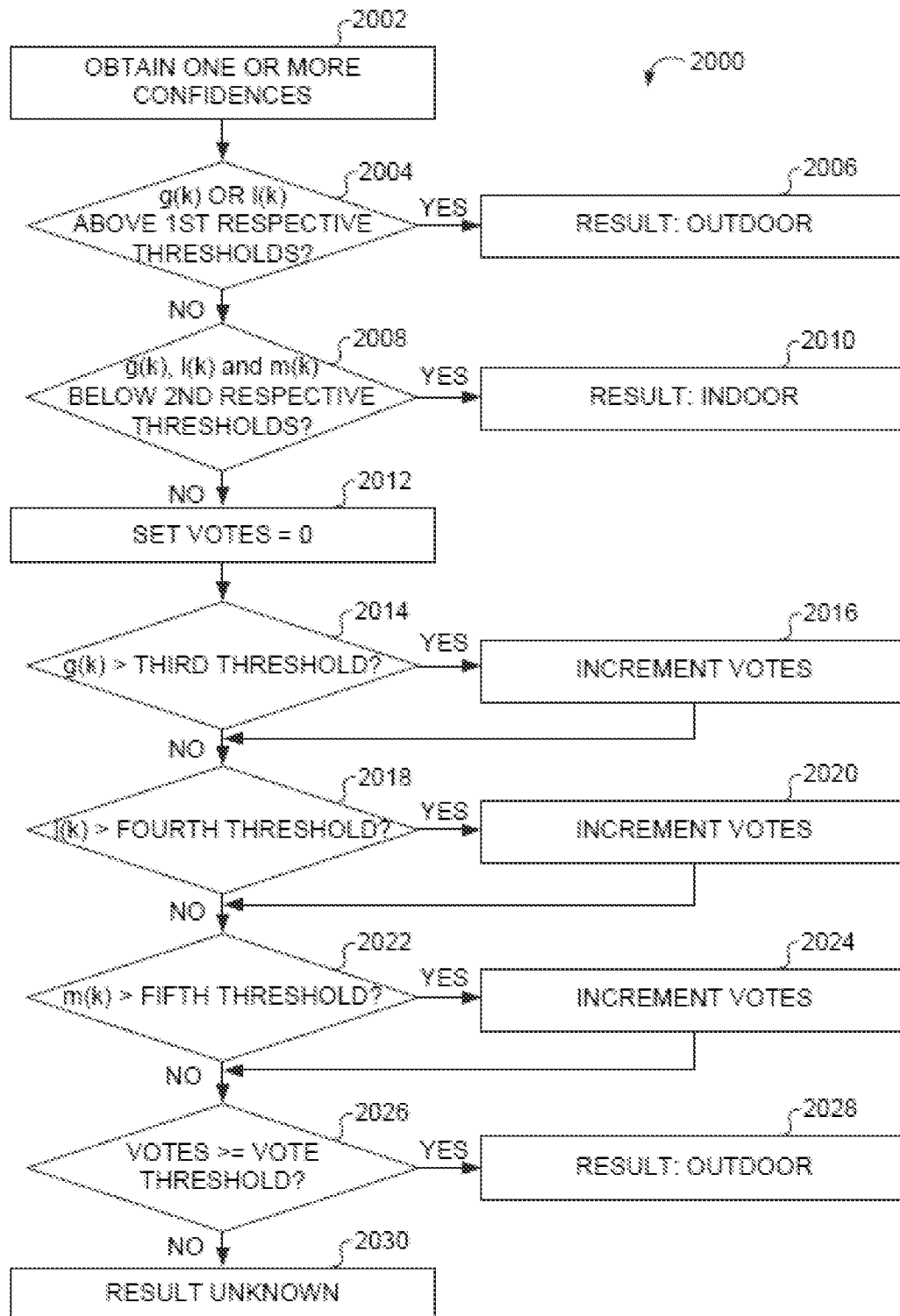
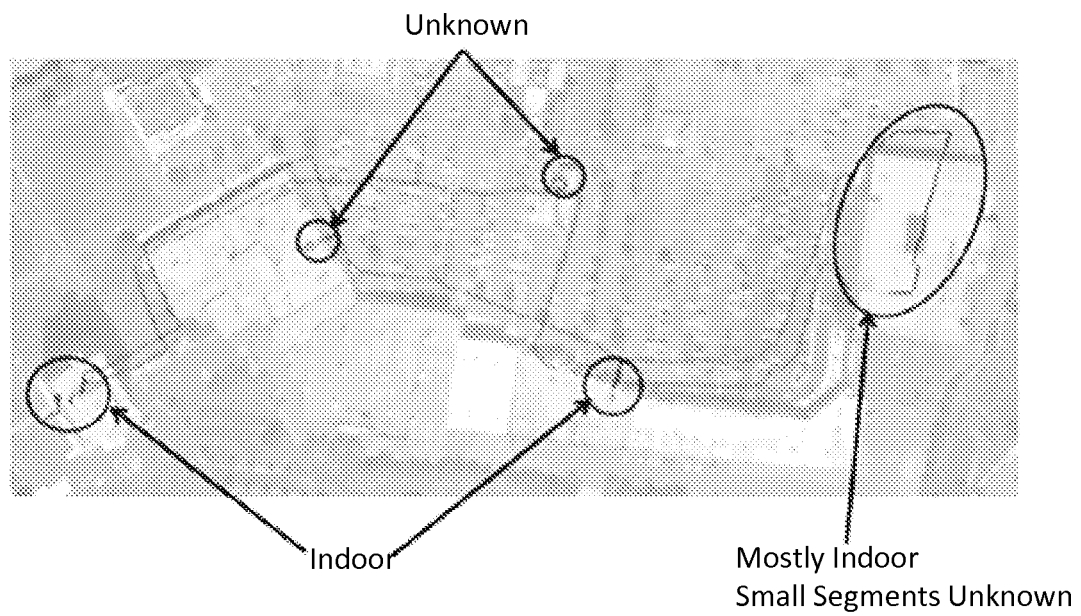
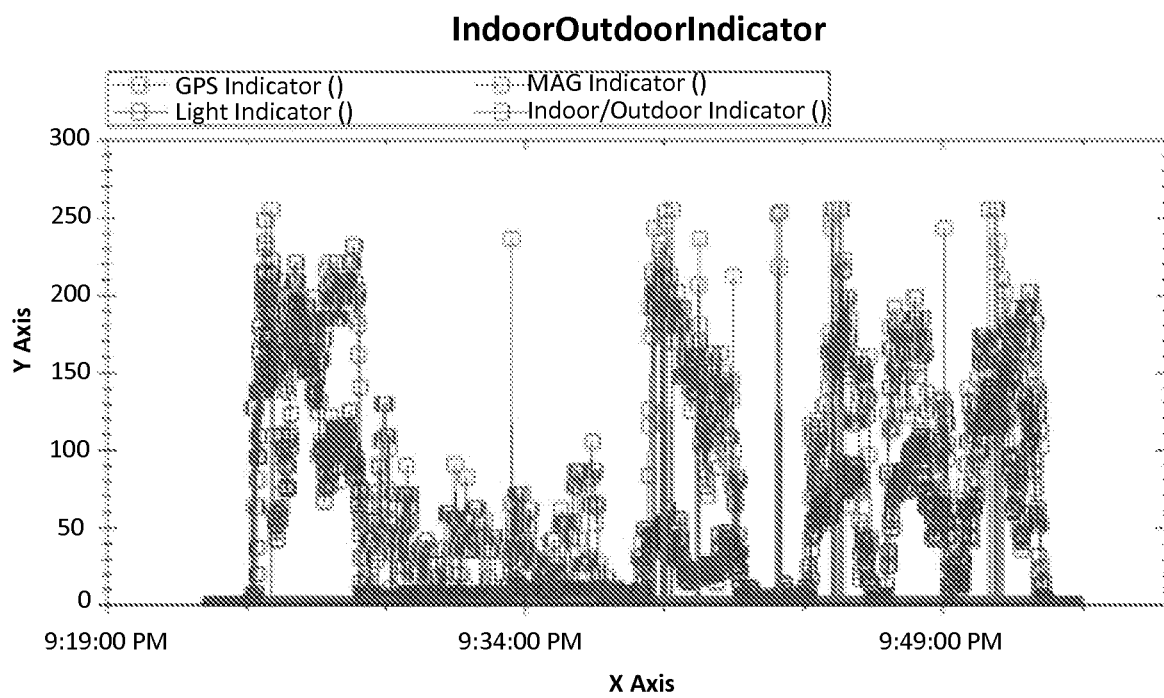
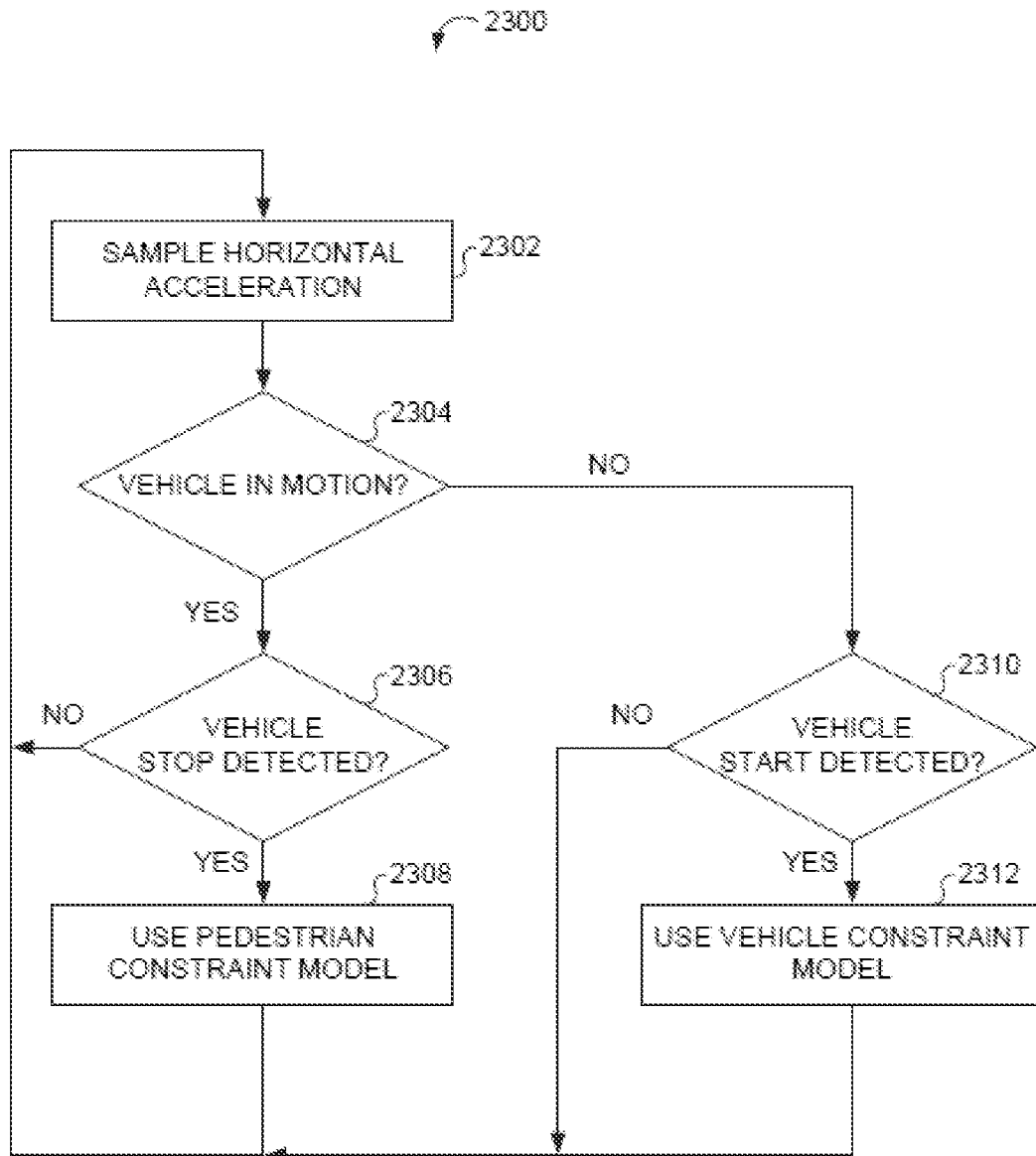


FIG. 20

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**FIG. 21****FIG. 22**

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**FIG. 23**

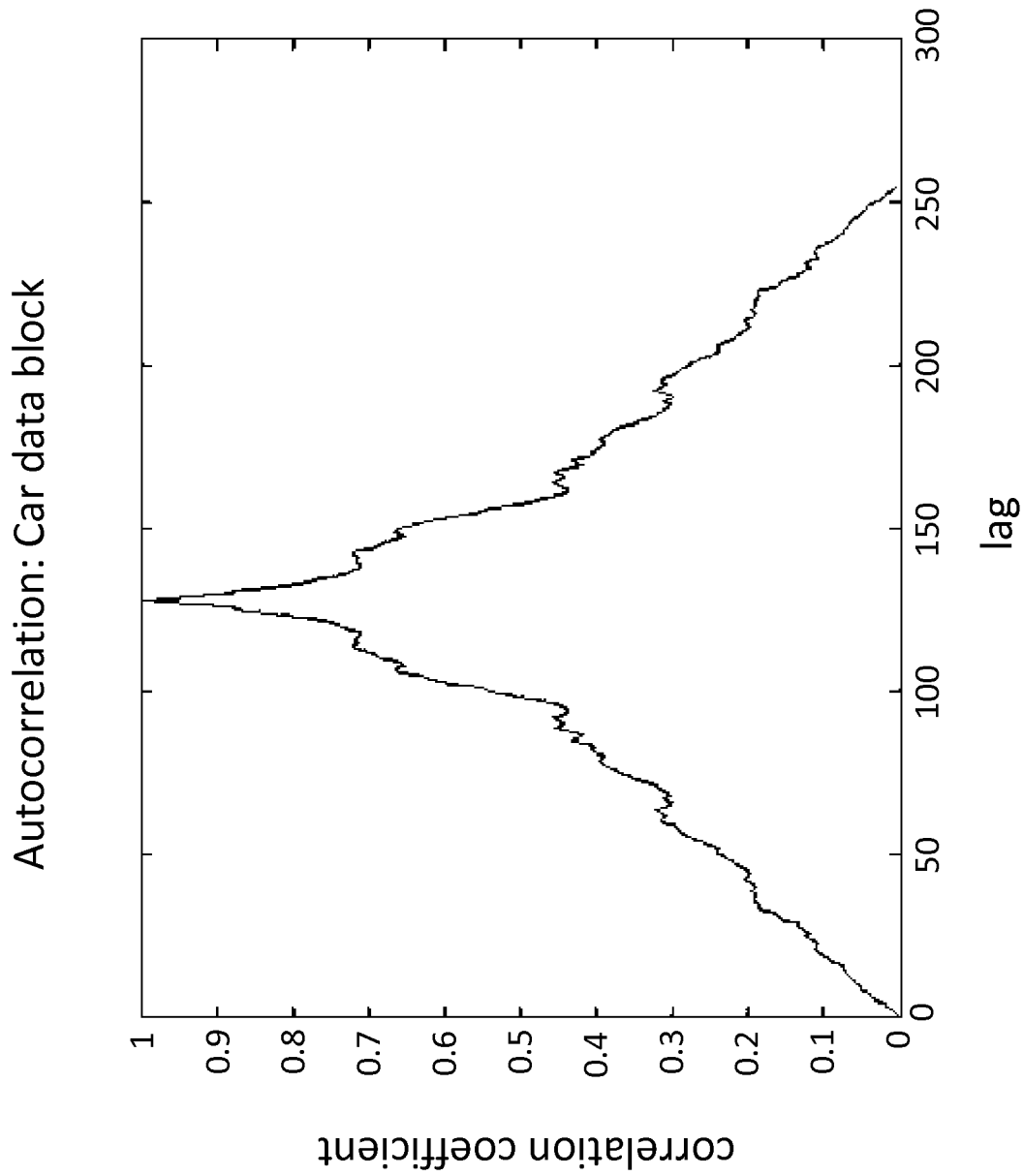


FIG. 24

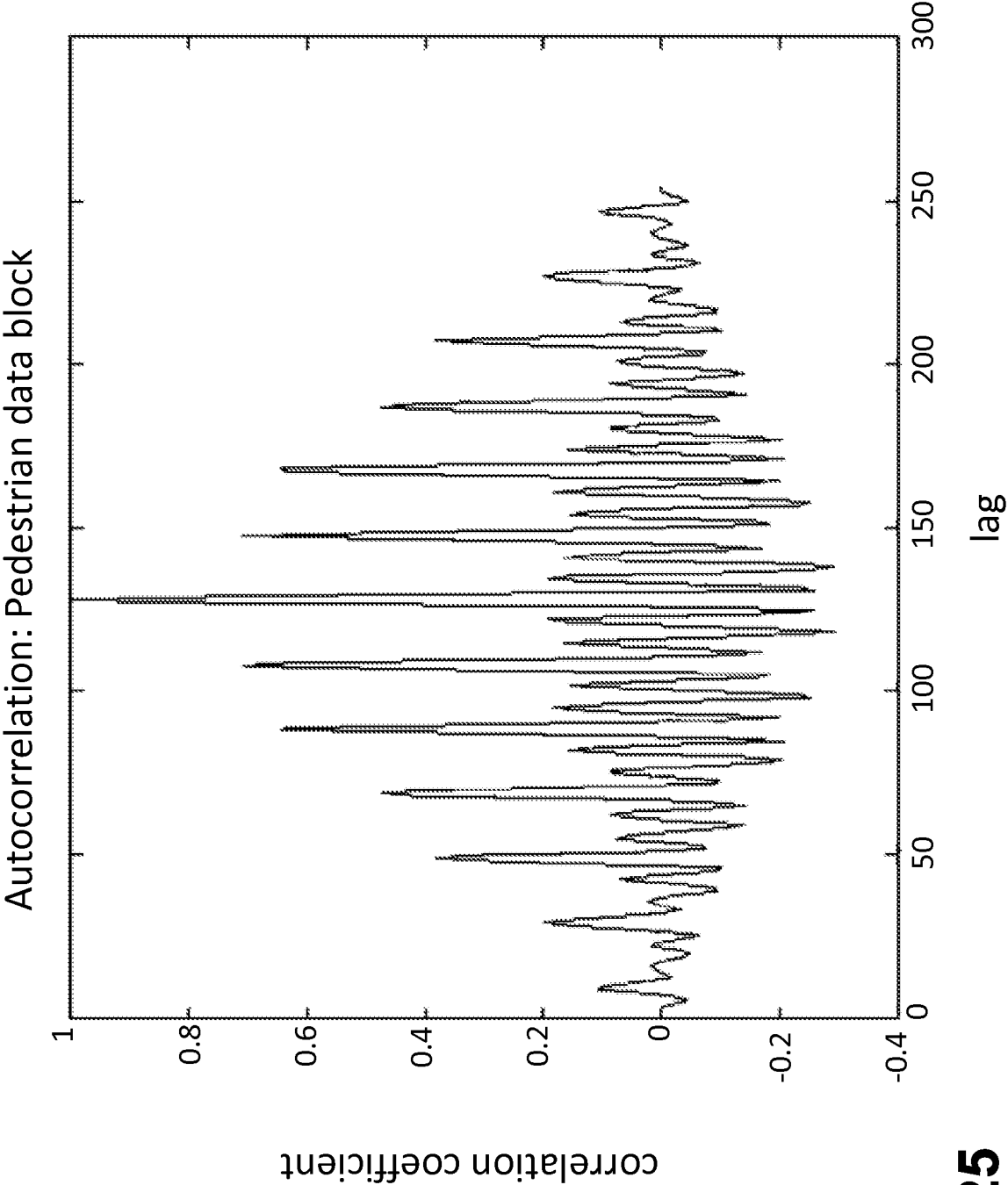


FIG. 25

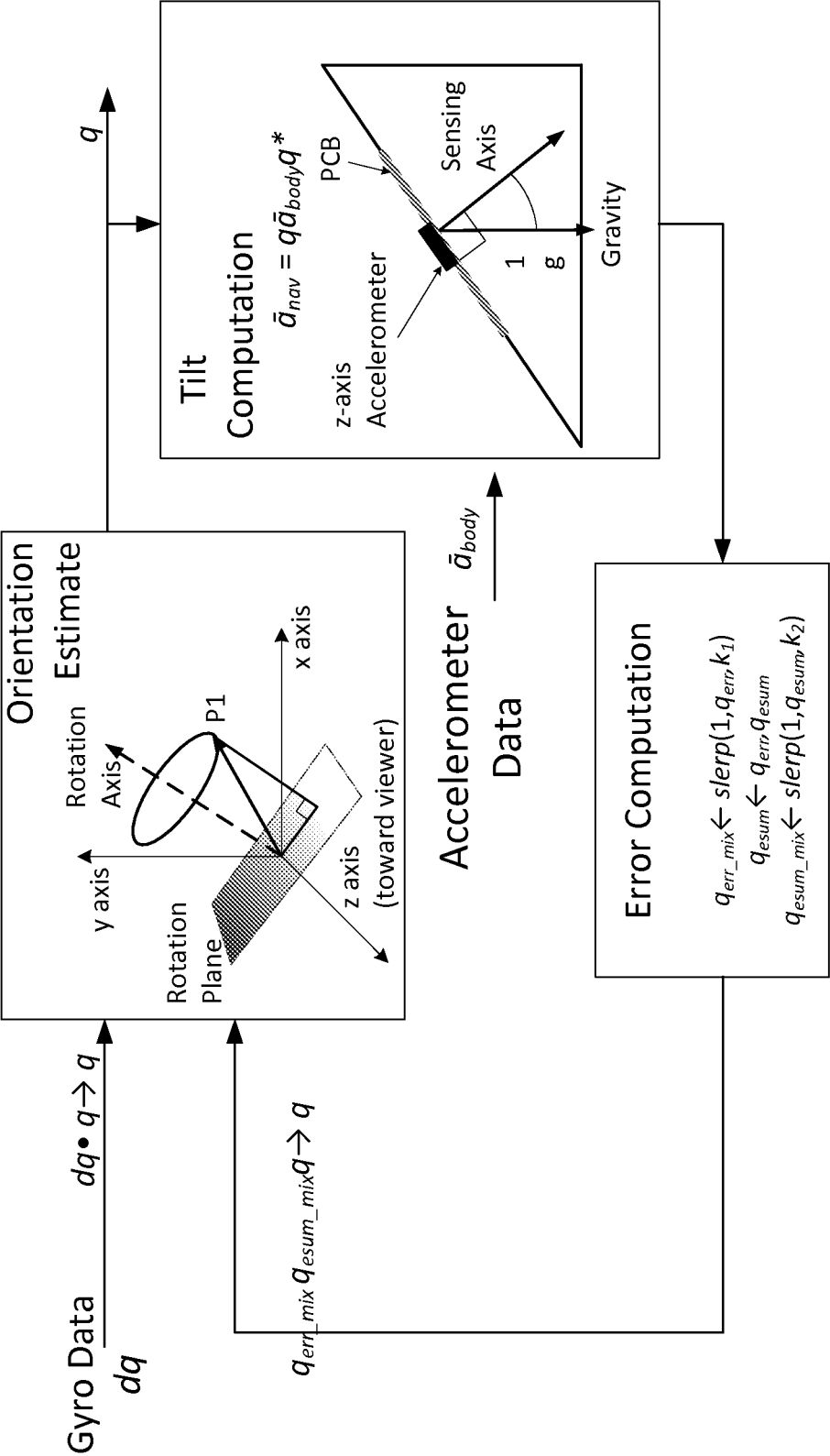
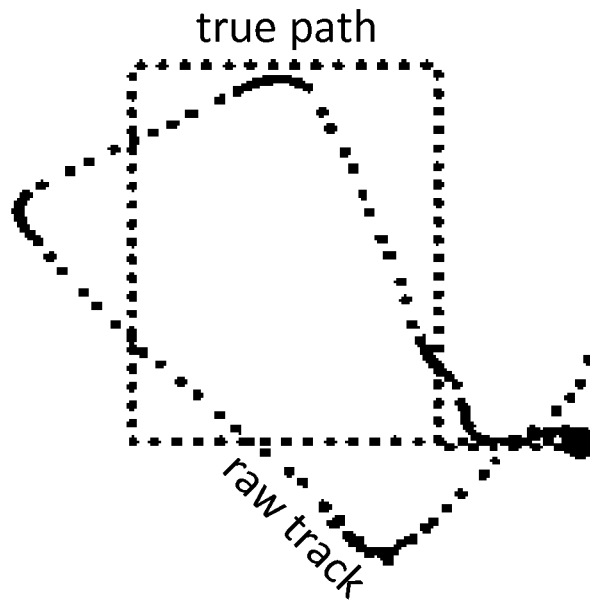
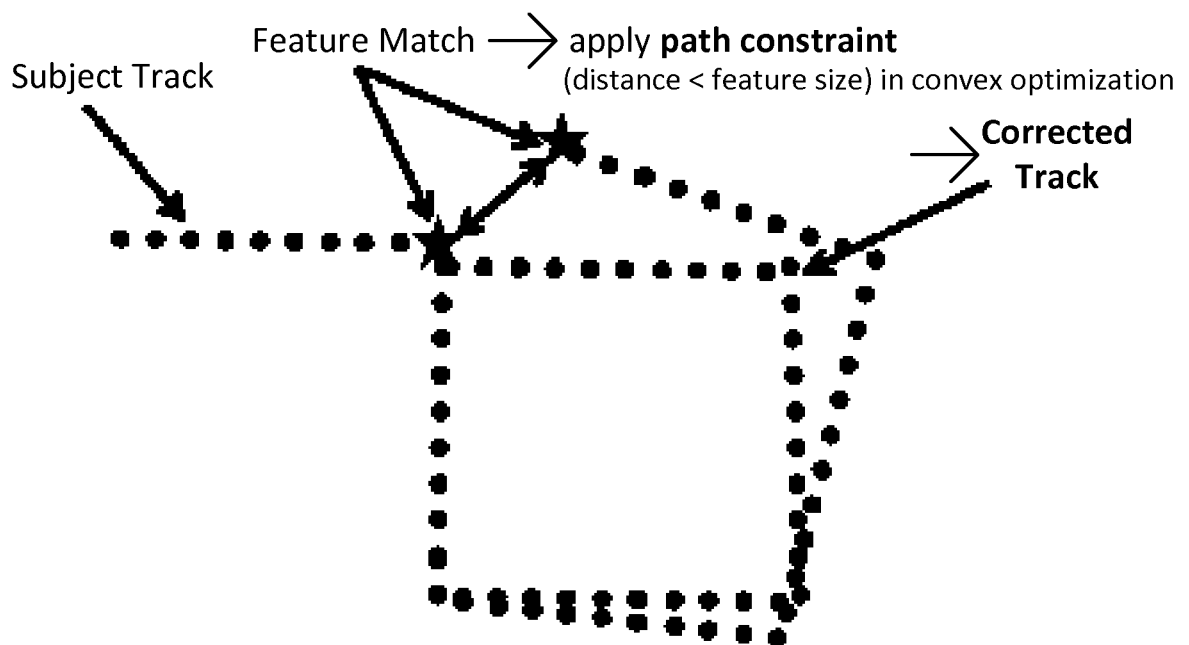


FIG. 26

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**FIG. 27A****FIG. 27B**