

Solution for passenger detection without privacy issue

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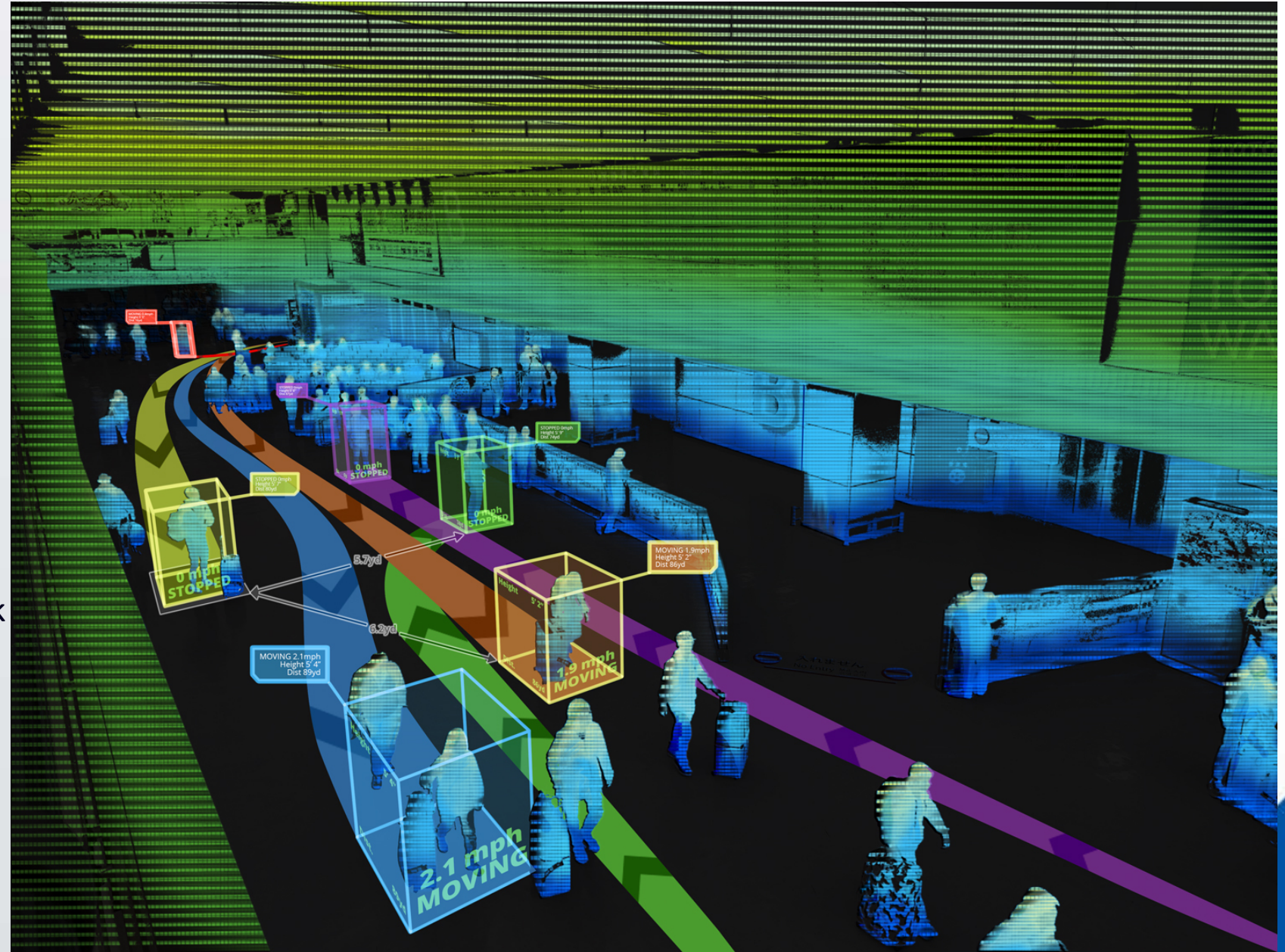


Problem of using image recognition technology in public area

- The most common image sensor used for image recognition is RGB camera
- The level of detail of the image from RGB camera provide enough to disclose the location any person
- Privacy issue would be raised if we use RGB camera

Detection Using Lidar

- Lidar is able to detect object in long distance (up to 100m) and tracking large number of object in 360 degrees
- The level of detail of the image is not enough for detecting passenger with buck luggage or person with disability
- No privacy issue because the level of detail of the image is not enough for face recognition



Detection Using Thermal imaging

- The level of detail of the image is enough to identify the passenger with buck luggage and person with disability
- No privacy issue because the level of detail of the image is not enough for face recognition



Detection of persons with disabilities or bulky luggage



Conclusion

Lidar and Thermal Camera has different advantage and disadvantage. There is no single solution can cover all our detection requirement.

The propose solution is fuse 2 sensor so that Lidar detects the long range person (up to 100m) and tracks every person inside the concourse. Thermal camera identifies the person with disability , track the person and give a voice alert in case the person with disability approach the escalator.



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