ACPE IWG #10

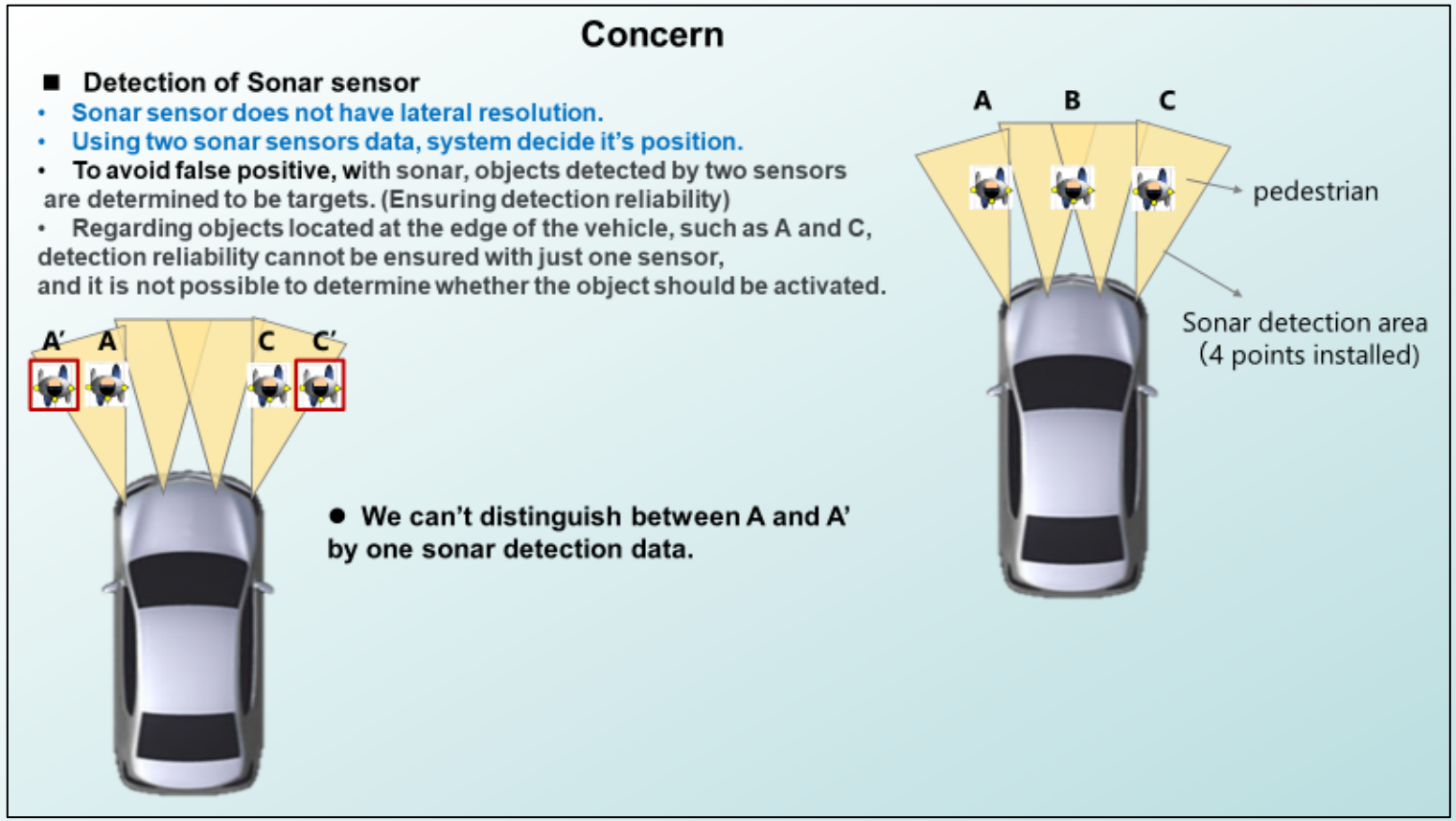
■ Pedestrian operation area proposal

5.1.5. (d)

(iii) **In the case of a pedestrian obstacle, the entire pedestrian obstacle is located between two vertical longitudinal planes which are 0.1m within the extreme outer edge of the vehicle.**

Difficulty robust operation for child pedestrian

- **ACPE-09-07 (Korea MTG)**



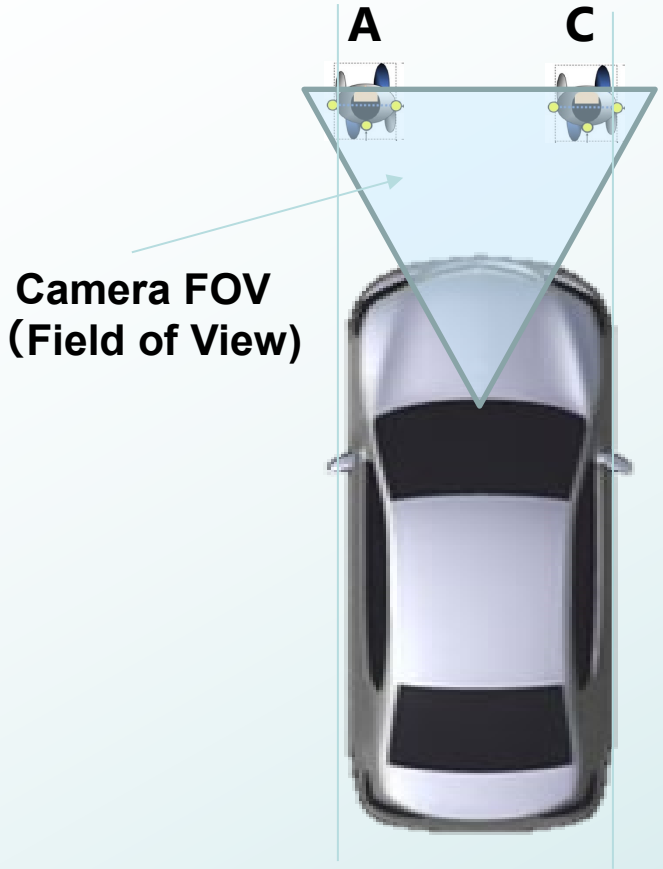
■ Pedestrian operation area

- At this moment, there is no ACPE systems that guarantees operation against pedestrians (children).
- It should be taken into consideration technical feasibility.

Explains that due to the detection characteristics of sonar, it is difficult to stably detect the ends of vehicles.

Difficulty robust operation for child pedestrian

■ Camera detection



■ Pedestrian detection at the edge of the vehicle

- Target ; Child pedestrian → Short height
- Detection distance :
  Detection is required up to short distances
  → Only the upper chest area can be detected
  → Need to improve short-distance recognition performance

- Detection at the edge of the vehicle :
  Image distortion is affected at the edges of the camera's field of view.

→ Robust detection is difficult

To robust ACPE control, it is required robust obstacle detection technology that works in conjunction with ultrasonic sonar sensor information, etc.

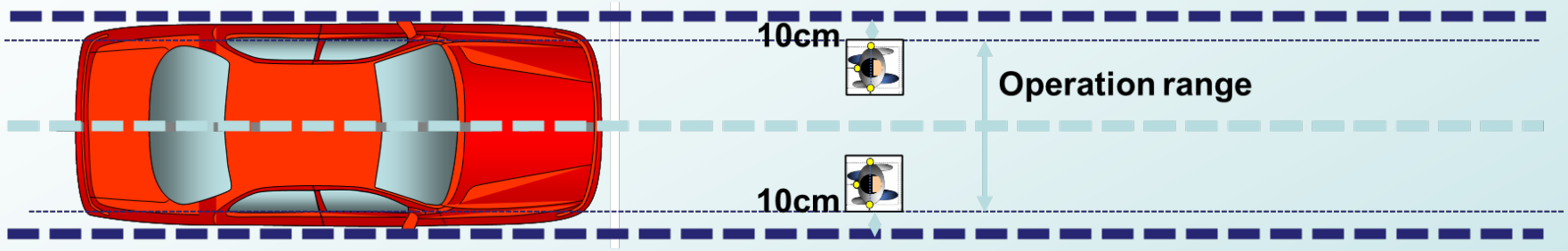
■ Considering “False positive operation”

- **Sensor detection also includes lateral position errors, and when trying to ensure operation up to the edge of the vehicle, it may detect objects on the roadside, increasing the possibility of false positive.**

Proposal

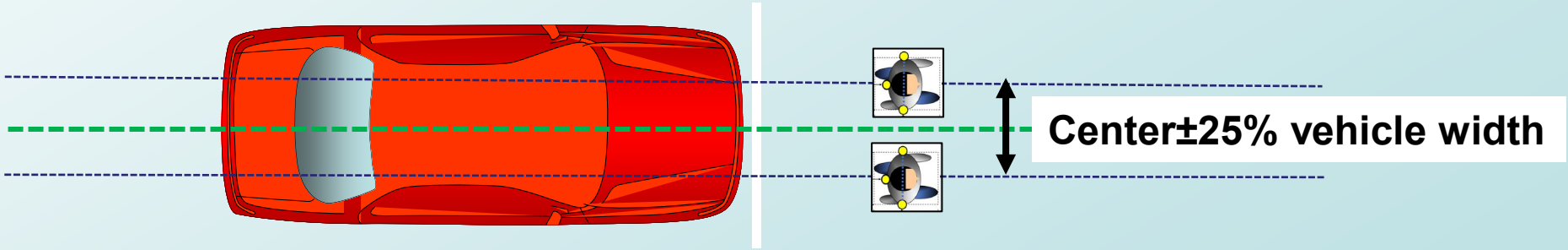
■ Current text

(iii) In the case of a pedestrian obstacle, the entire pedestrian obstacle is located between two vertical longitudinal planes which are 0.1m within the extreme outer edge of the vehicle.



■ Operation area proposal

Considering the robustness of ACPE pedestrian operation, propose a vehicle center ±25% range.



- **Amendment text**

(iii) In the case of a pedestrian obstacle, the lateral offset between subject vehicle centreline and pedestrian centreline shall be 0.0 m and 25% of the subject vehicle width.

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Thank you