Japan’s proposal for Pedestrian Protection GTR Scope
Comparison of dummy’s behavior at collision by vehicle front surface design(1)

Car type: Sedan, Pedestrian size: 6 year old child

Vehicle Speed: 40km/h

Car type: Truck, Pedestrian size: 6 year old child

Vehicle Speed: 40km/h
Comparison of dummy’s behavior at collision by vehicle front surface design(2)

Car type: Sedan, Pedestrian size: 6 year old child

Car type: Truck, Pedestrian size: 6 year old child
1. The GTR draft test protocol is originally based on the EEVC study which covers bonnet type vehicles.

2. IHRA study expanded the test protocol coverage for 3 types of vehicles, i.e., typical bonnet type passenger car, SUV and 1-box type vehicles. However, the test protocol still does not cover flat front vehicles.
The relationship between the front axle and the rear most H-point of frontal seat

Proposed: \(D \geq 1000\text{mm}\) including the object of gtr
\(D < 1000\text{mm}\) excluding the object of gtr
NEW type of mini-truck (D<500)  OLD type of mini-truck (D>500)

D=780mm  D=295mm
FFV definition

Truck A

D=140

Wheelbase: 2335
Overall length: 4460
Overall height: 1930

Truck B

D=150

Wheelbase: 2335
Overall length: 4460
FFV definition

Truck E
- D = 180
- L = 4430 mm

Truck F
- D = 275
- L = 4240 mm

D = 1130
FFV definition

Van A  D=271

PC A  D=271
FFV definition

Mini-van A

D = 920

Mini-truck A

D = 780

Mini-truck B

D = 295

K-truck C

D = 850

(Wheelbase) 2200
(Overall length) 3395
Japan Proposal (Excluding the object of GTR)

- **0 mm**
  - Truck, Van

- **500 mm**
  - Mini-truck, -Van

- **1000 mm**
  - PC, e.t.c

- Meet to IHRA corridor

- Don’t meet to IHRA corridor

FFV definition
JAPAN’s proposal

D < 1000mm as the defined for excluding the box type vehicle of Category 1-2 and Category 2

The relationship between the front axle and the rear most H-point of frontal seat

Proposed : D ≥ 1000mm including the object of gtr
D < 1000mm excluding the object of gtr