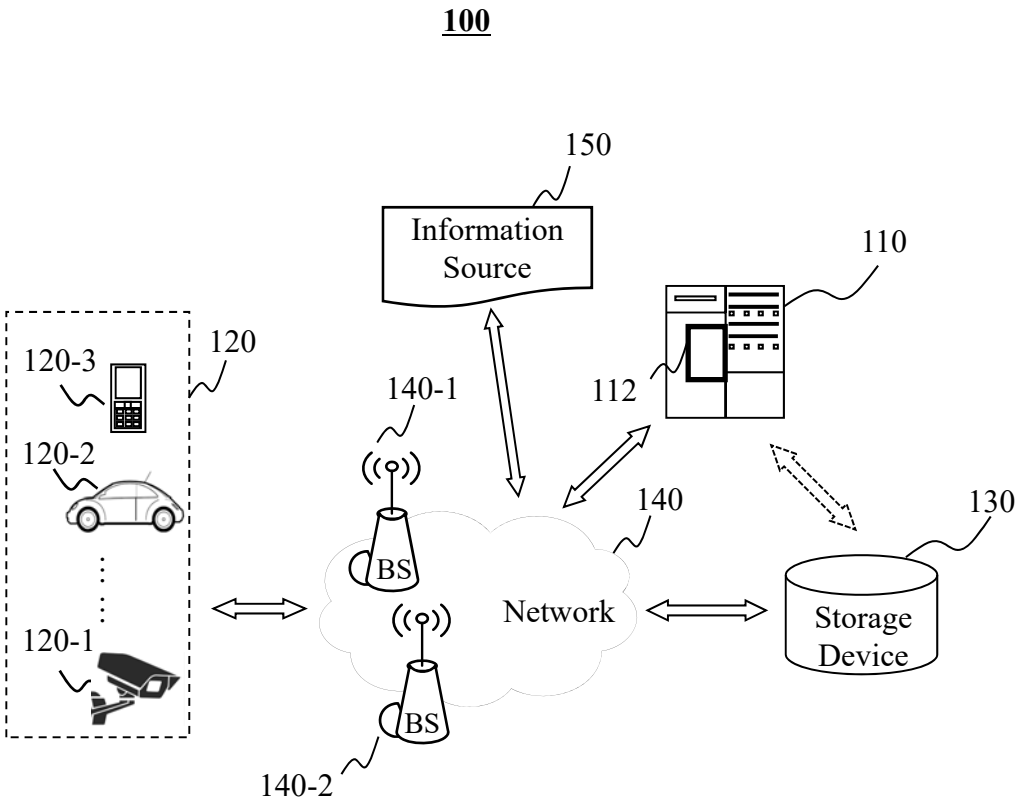

100
150
Information Source
110
120
120-3
120-2
120-1
140-1
112
140
130
BS
Network
Storage Device
BS
140-2

FIG. 1

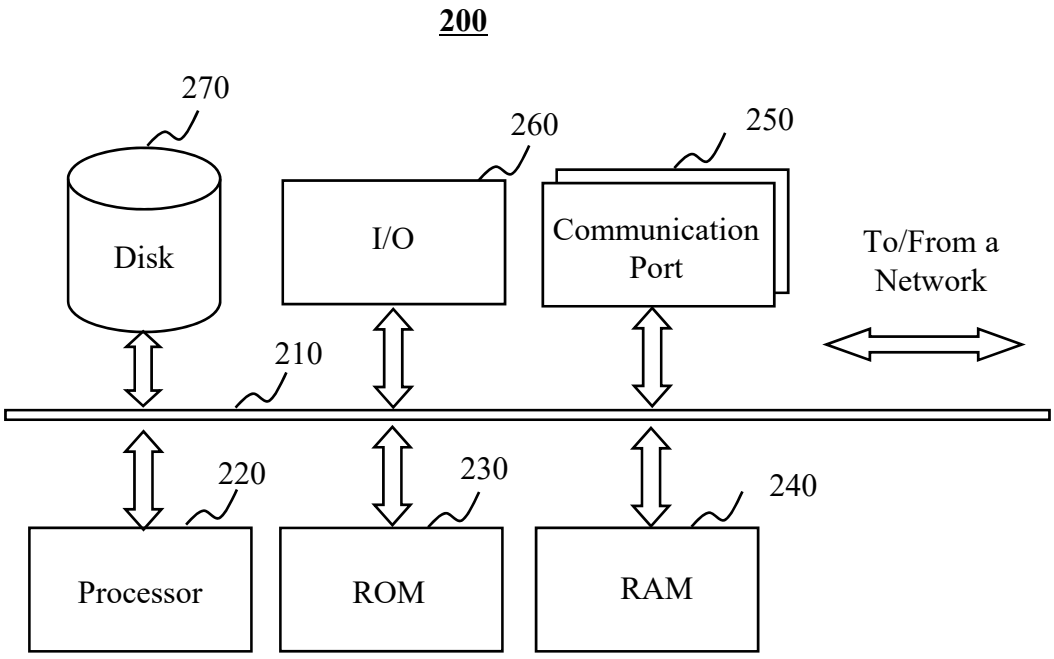

200
270
260
250
Disk
I/O
Communication Port
To/From a Network
210
220
230
240
Processor
ROM
RAM

FIG.2

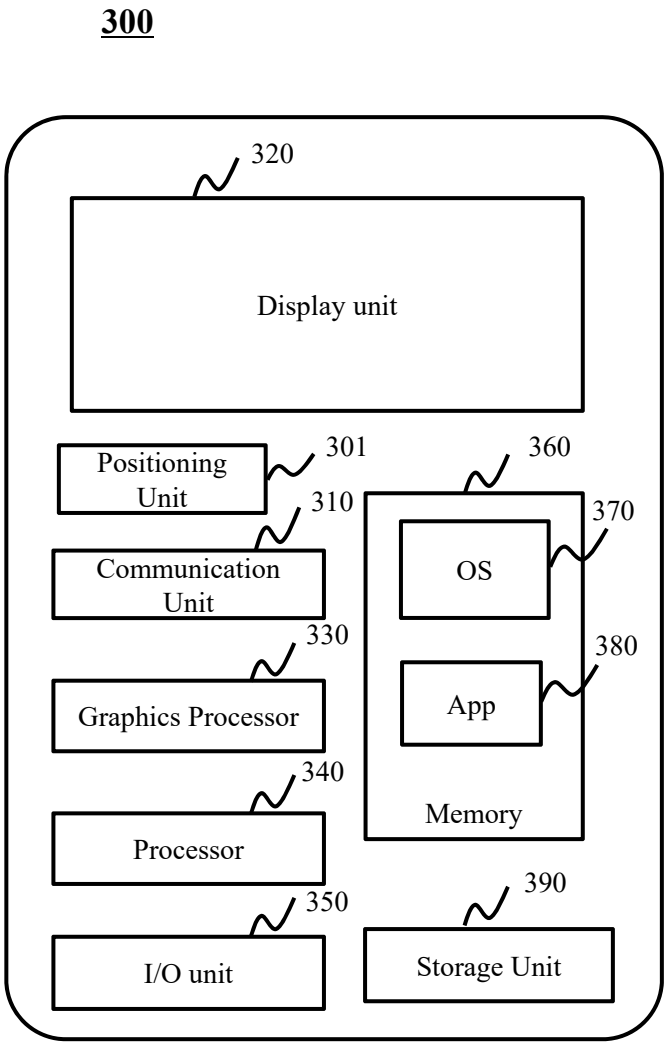

300
320
Display unit
Positioning Unit
301
360
310
370
Communication Unit
OS
330
380
Graphics Processor
App
340
Memory
Processor
390
350
I/O unit
Storage Unit

FIG. 3

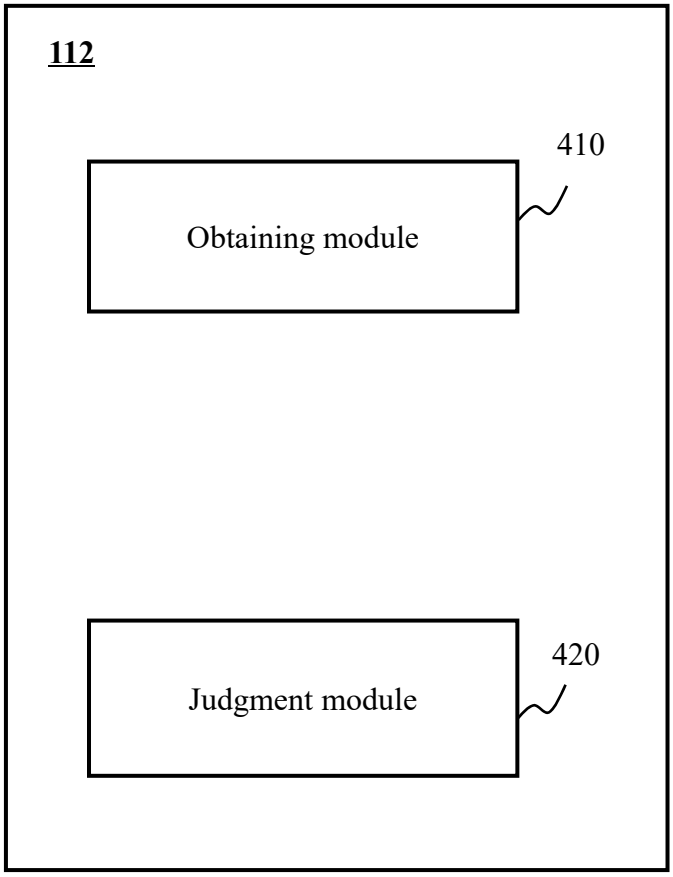


FIG. 4

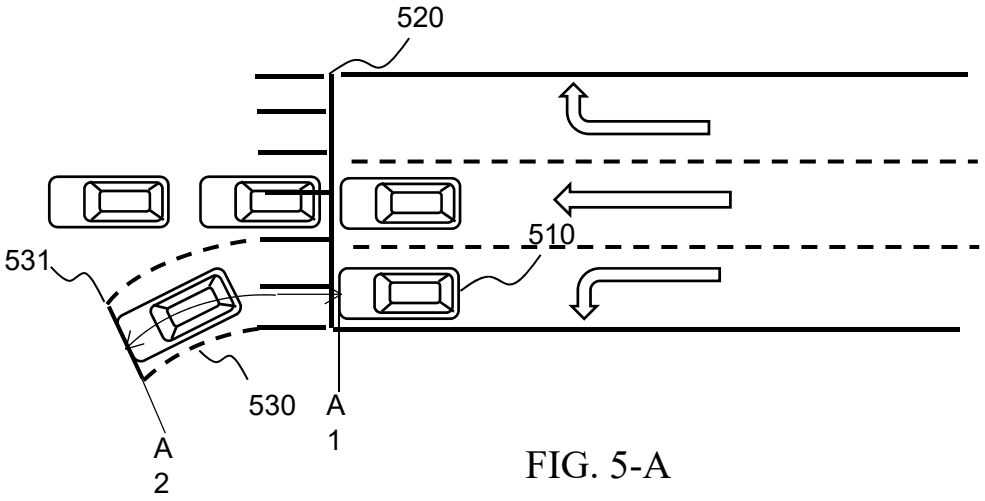


FIG. 5-A

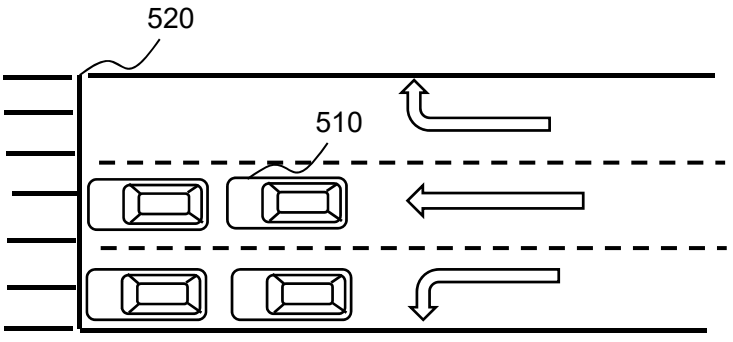


FIG. 5-B

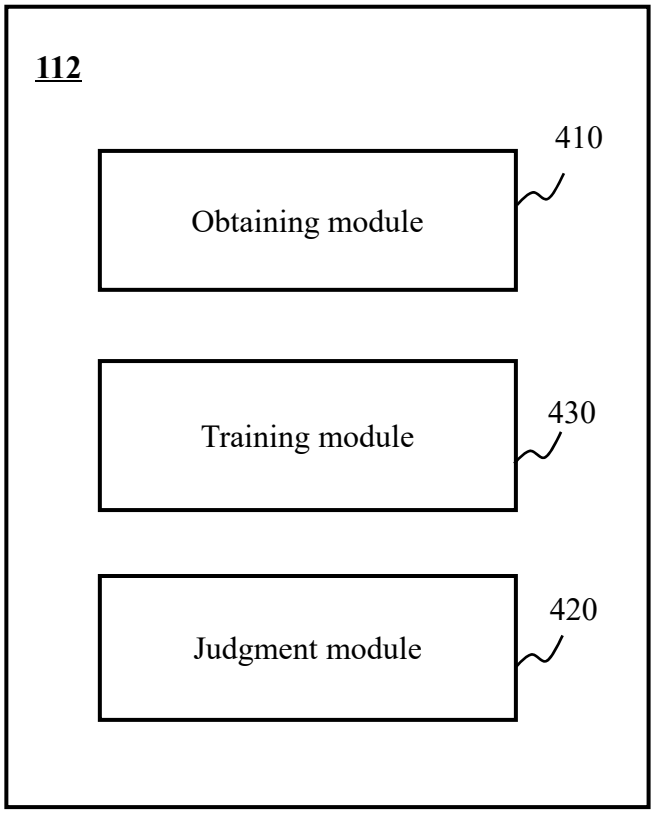

112
410
Obtaining module
430
Training module
420
Judgment module

FIG. 6

700

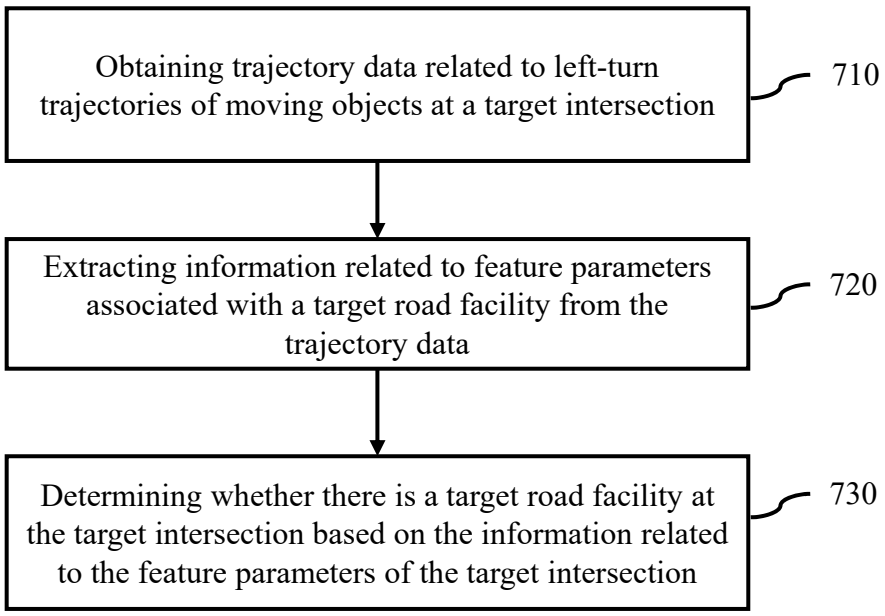

Obtaining trajectory data related to left-turn trajectories of moving objects at a target intersection
710
Extracting information related to feature parameters associated with a target road facility from the trajectory data
720
Determining whether there is a target road facility at the target intersection based on the information related to the feature parameters of the target intersection
730

FIG.7

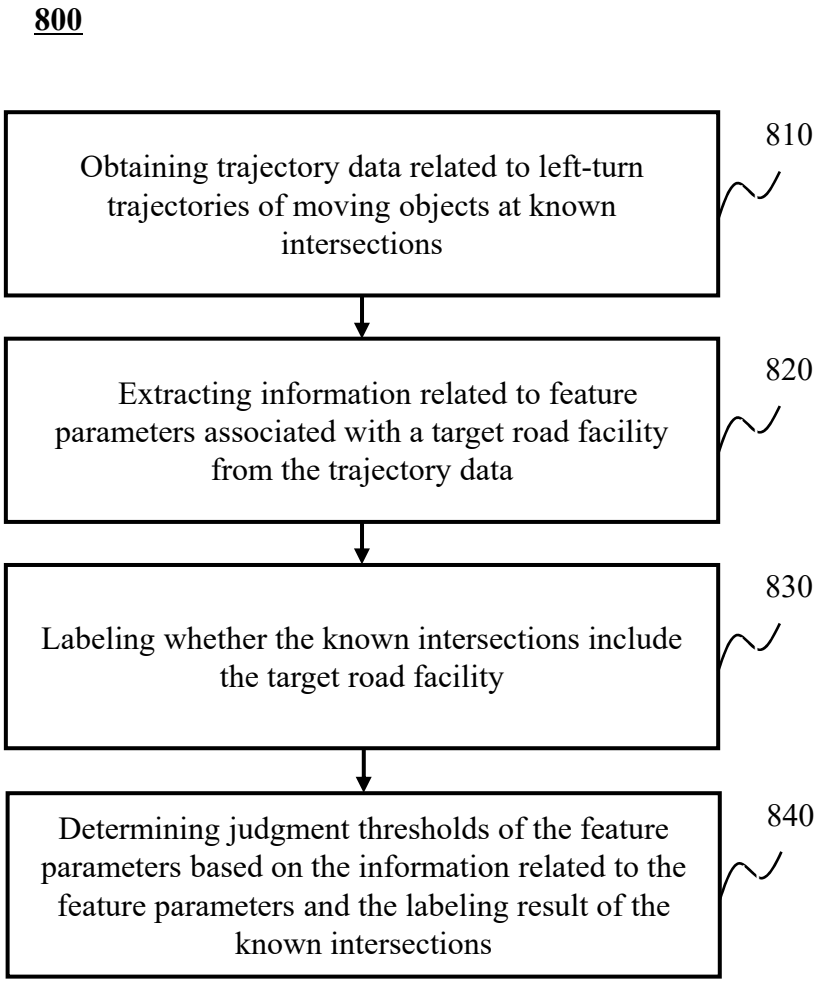

800
Obtaining trajectory data related to left-turn trajectories of moving objects at known intersections
810
Extracting information related to feature parameters associated with a target road facility from the trajectory data
820
Labeling whether the known intersections include the target road facility
830
Determining judgment thresholds of the feature parameters based on the information related to the feature parameters and the labeling result of the known intersections
840

FIG. 8

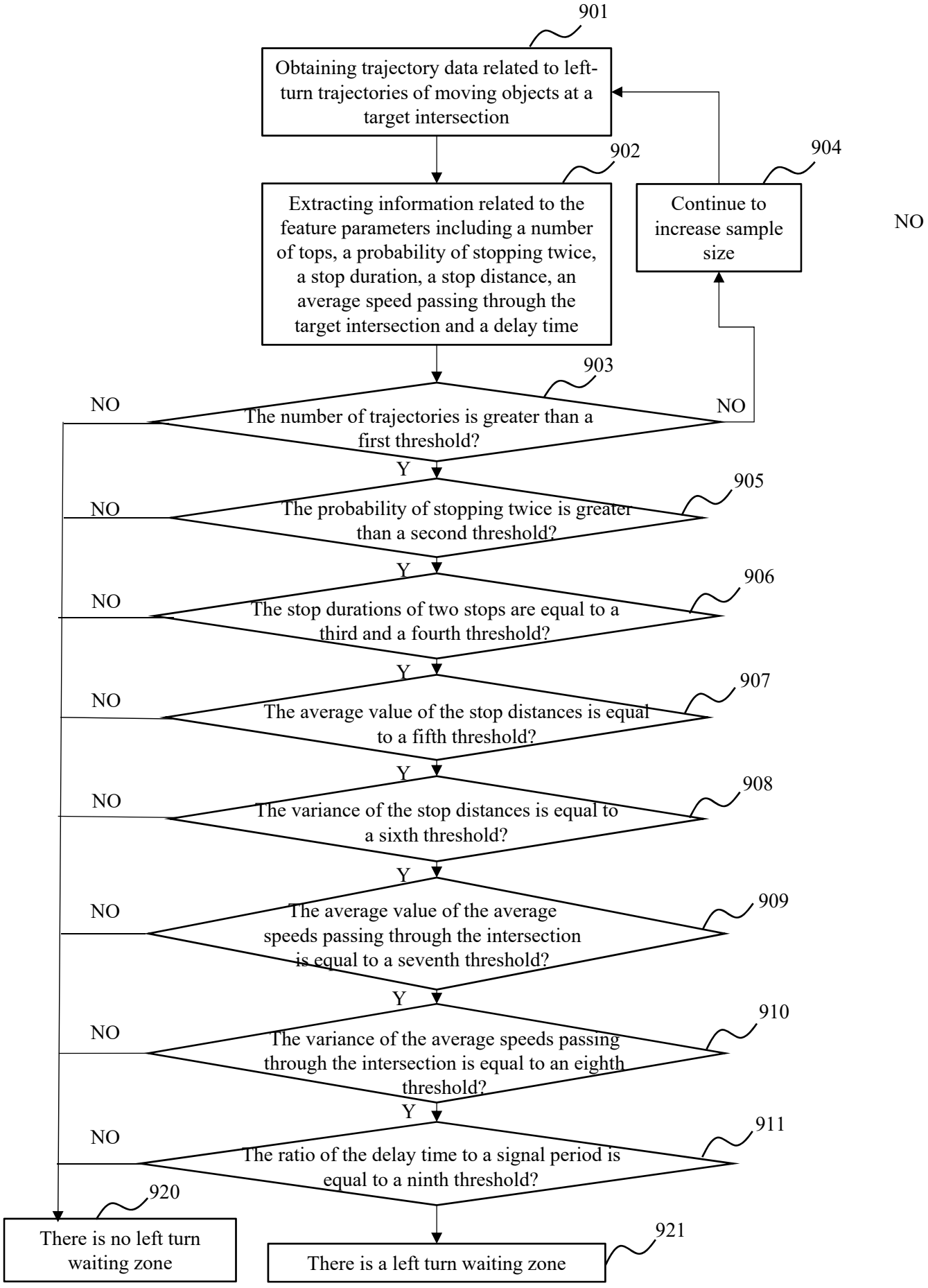

901
Obtaining trajectory data related to left-turn trajectories of moving objects at a target intersection
902
Extracting information related to the feature parameters including a number of tops, a probability of stopping twice, a stop duration, a stop distance, an average speed passing through the target intersection and a delay time
904
Continue to increase sample size
NO
903
The number of trajectories is greater than a first threshold?
NO
NO
Y
905
The probability of stopping twice is greater than a second threshold?
NO
Y
906
The stop durations of two stops are equal to a third and a fourth threshold?
NO
Y
907
The average value of the stop distances is equal to a fifth threshold?
NO
Y
908
The variance of the stop distances is equal to a sixth threshold?
NO
Y
909
The average value of the average speeds passing through the intersection is equal to a seventh threshold?
NO
Y
910
The variance of the average speeds passing through the intersection is equal to an eighth threshold?
NO
Y
911
The ratio of the delay time to a signal period is equal to a ninth threshold?
NO
920
There is no left turn waiting zone
921
There is a left turn waiting zone

FIG. 9

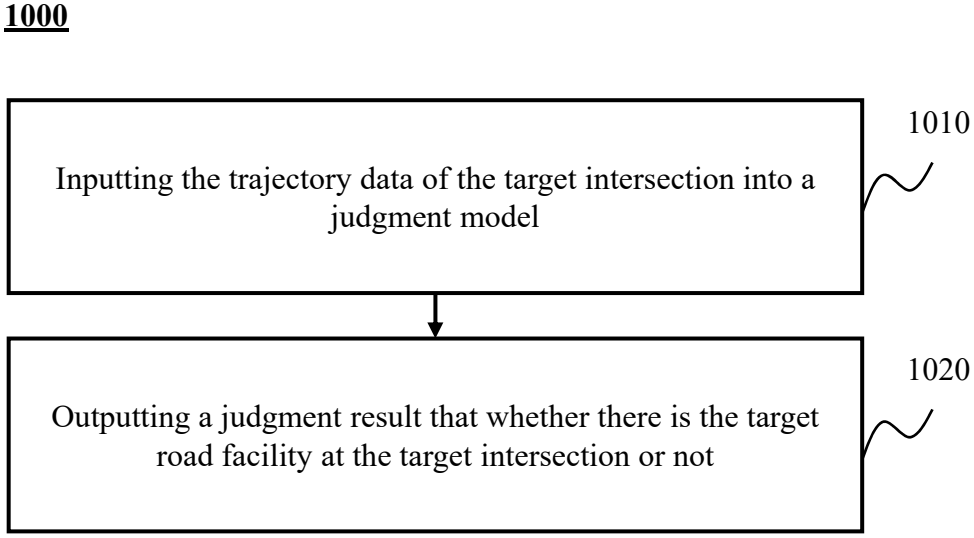

1000
Inputting the trajectory data of the target intersection into a judgment model
1010
Outputting a judgment result that whether there is the target road facility at the target intersection or not
1020

FIG. 10