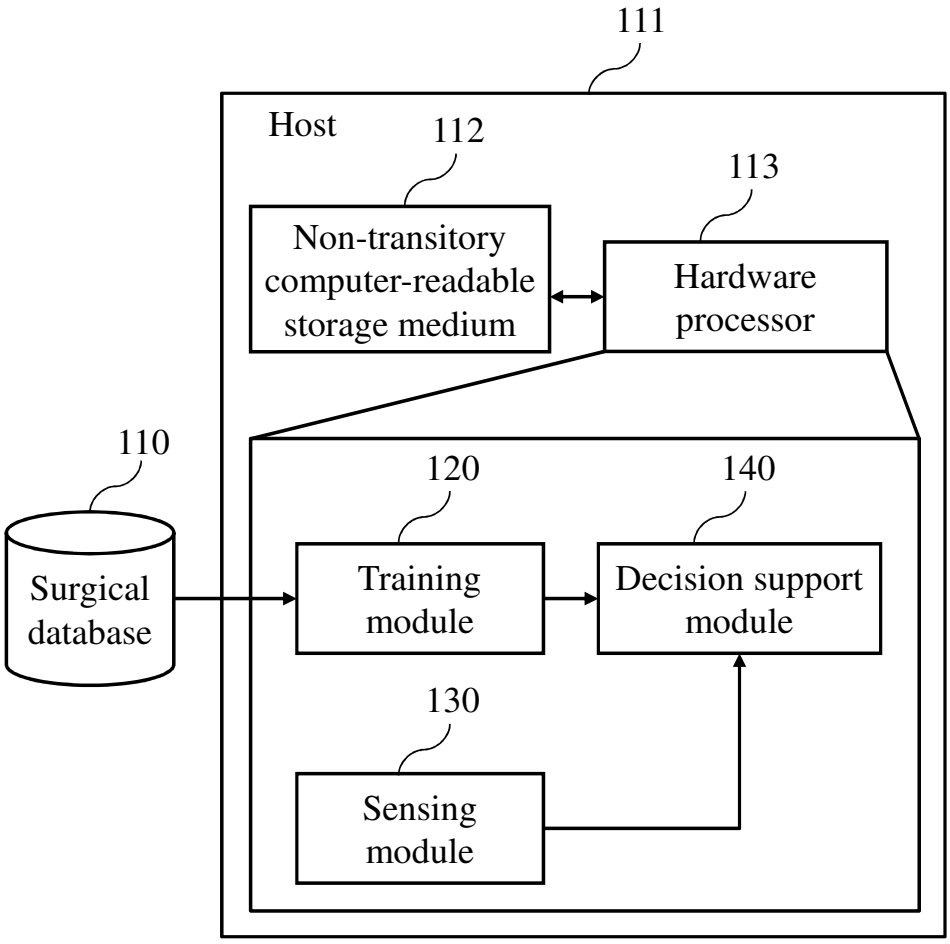

111
Host
112
Non-transitory computer-readable storage medium
113
Hardware processor
110
Surgical database
120
Training module
140
Decision support module
130
Sensing module

FIG. 1

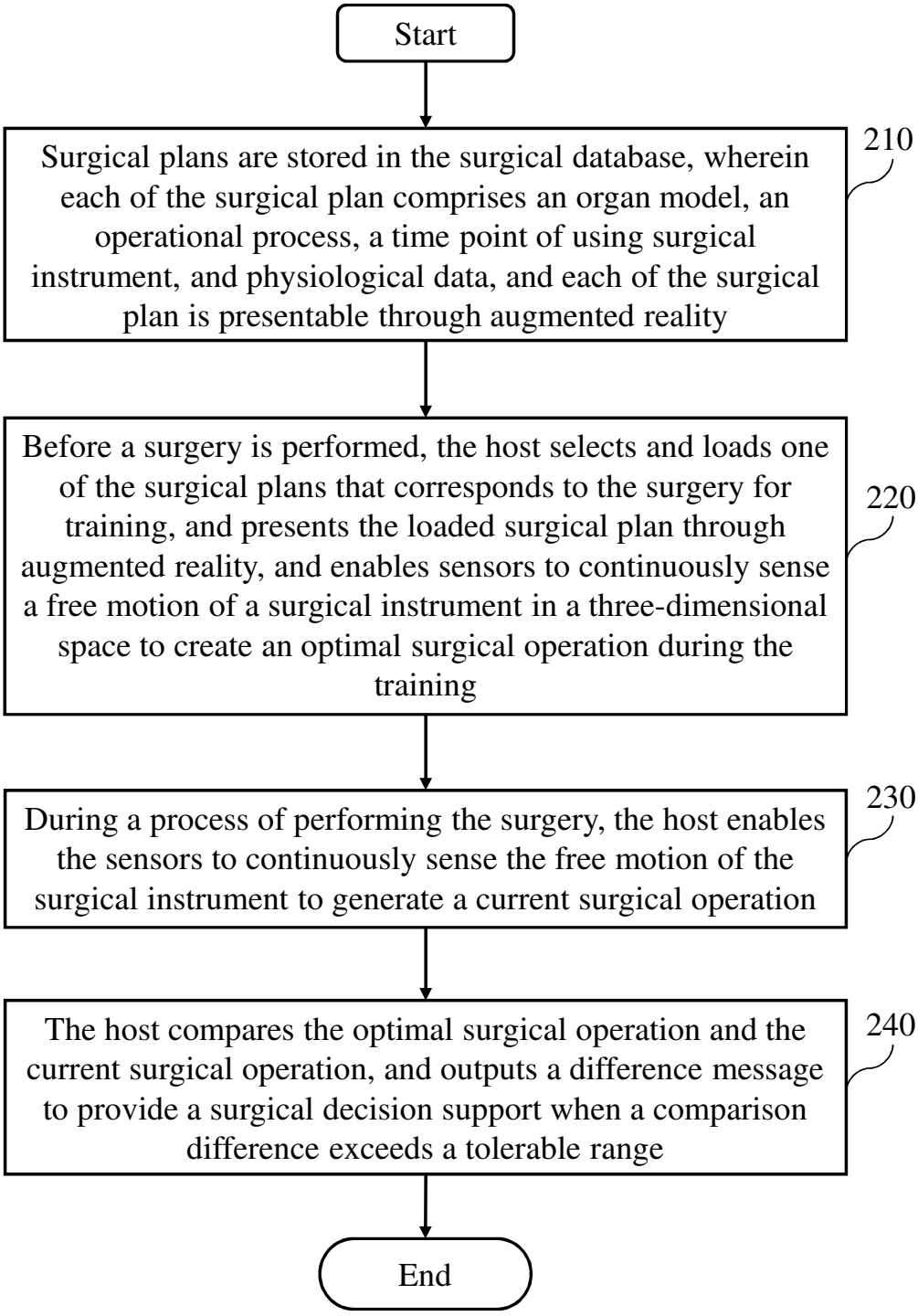

Start
Surgical plans are stored in the surgical database, wherein each of the surgical plan comprises an organ model, an operational process, a time point of using surgical instrument, and physiological data, and each of the surgical plan is presentable through augmented reality
210
Before a surgery is performed, the host selects and loads one of the surgical plans that corresponds to the surgery for training, and presents the loaded surgical plan through augmented reality, and enables sensors to continuously sense a free motion of a surgical instrument in a three-dimensional space to create an optimal surgical operation during the training
220
During a process of performing the surgery, the host enables the sensors to continuously sense the free motion of the surgical instrument to generate a current surgical operation
230
The host compares the optimal surgical operation and the current surgical operation, and outputs a difference message to provide a surgical decision support when a comparison difference exceeds a tolerable range
240
End

FIG. 2A

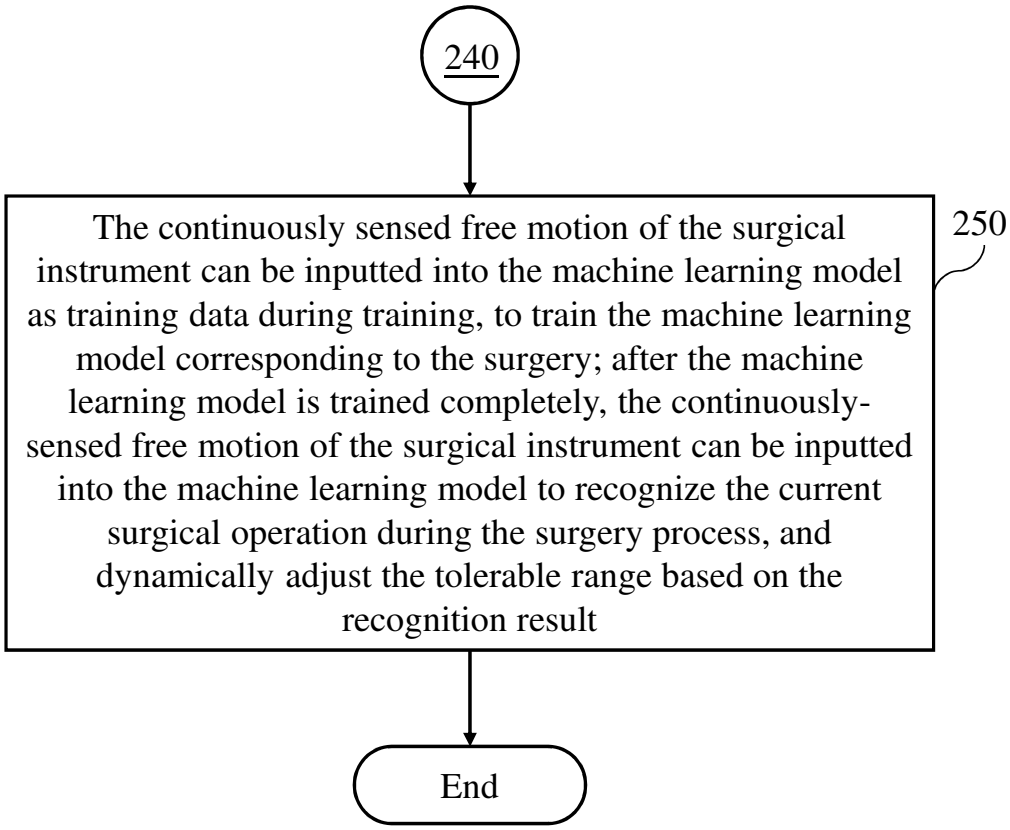

240
The continuously sensed free motion of the surgical instrument can be inputted into the machine learning model as training data during training, to train the machine learning model corresponding to the surgery; after the machine learning model is trained completely, the continuously-sensed free motion of the surgical instrument can be inputted into the machine learning model to recognize the current surgical operation during the surgery process, and dynamically adjust the tolerable range based on the recognition result
250
End

FIG. 2B

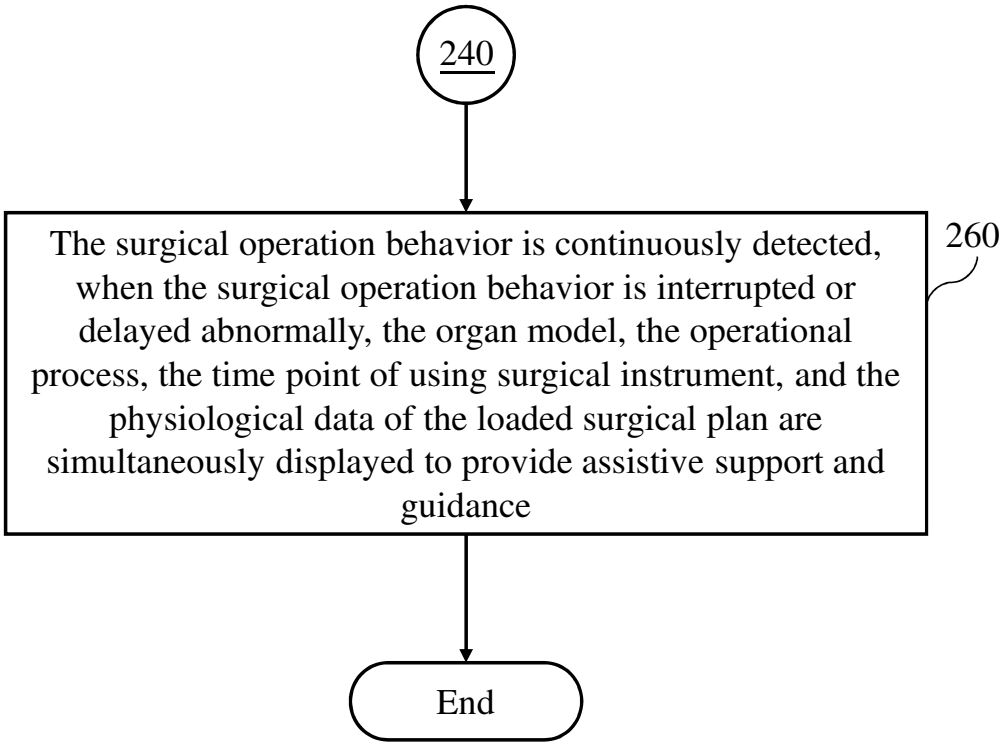

240
The surgical operation behavior is continuously detected, when the surgical operation behavior is interrupted or delayed abnormally, the organ model, the operational process, the time point of using surgical instrument, and the physiological data of the loaded surgical plan are simultaneously displayed to provide assistive support and guidance
260
End

FIG. 2C

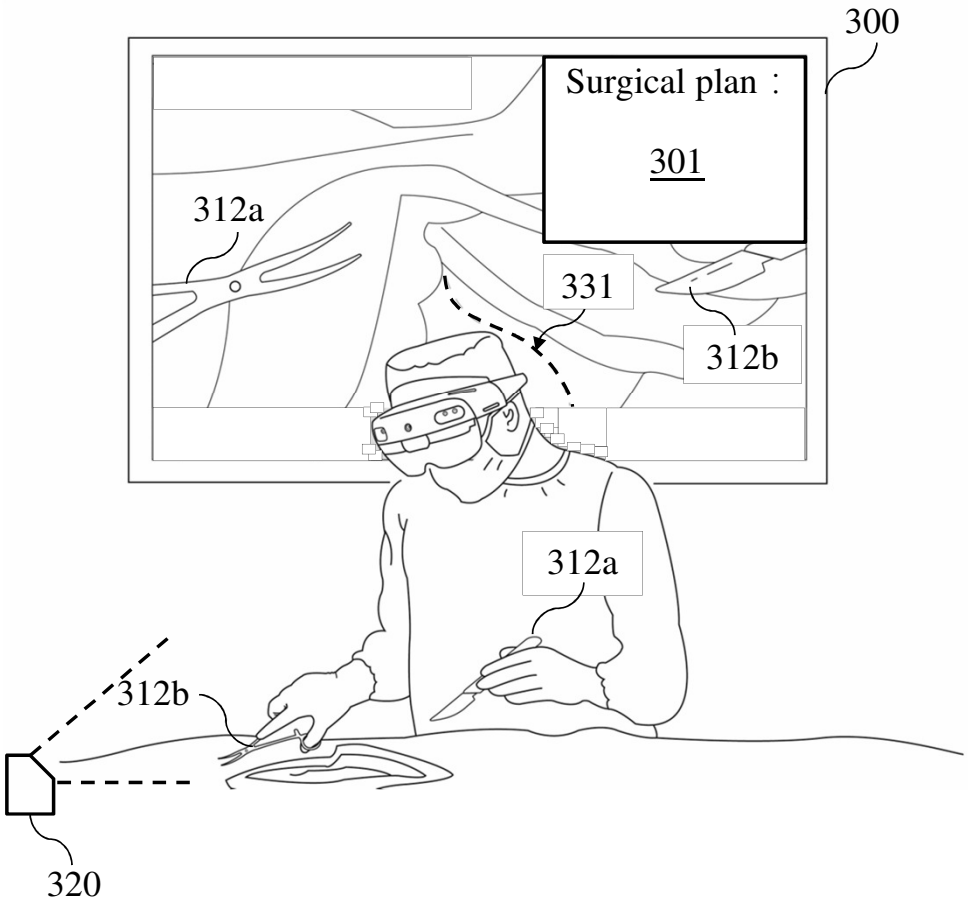


FIG. 3A

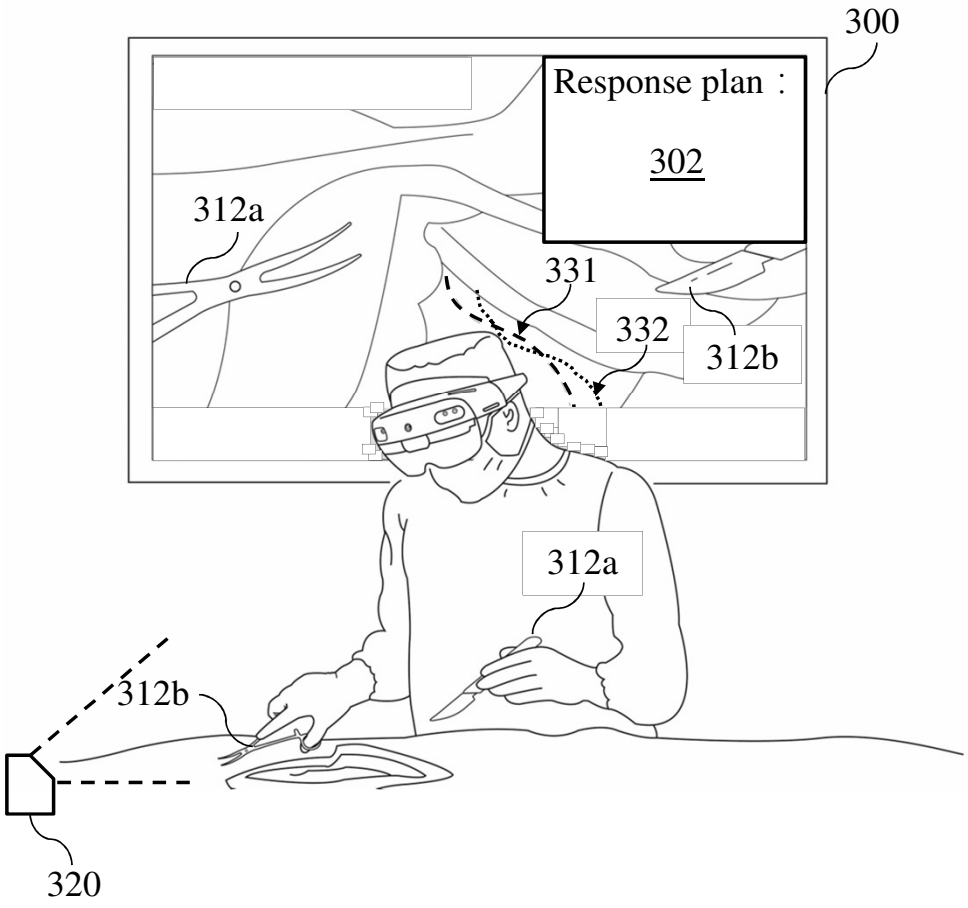


FIG. 3B

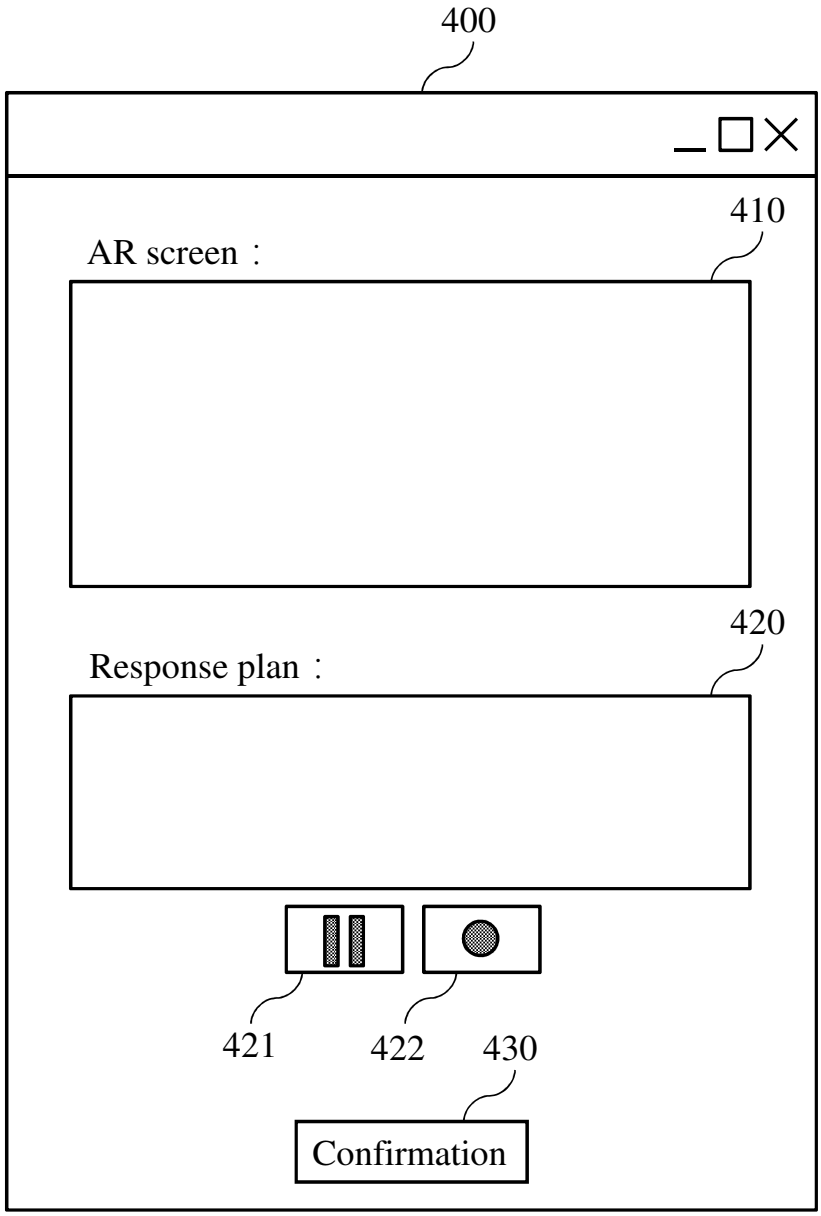

400
410
AR screen :
420
Response plan :
421
422
430
Confirmation

FIG. 4