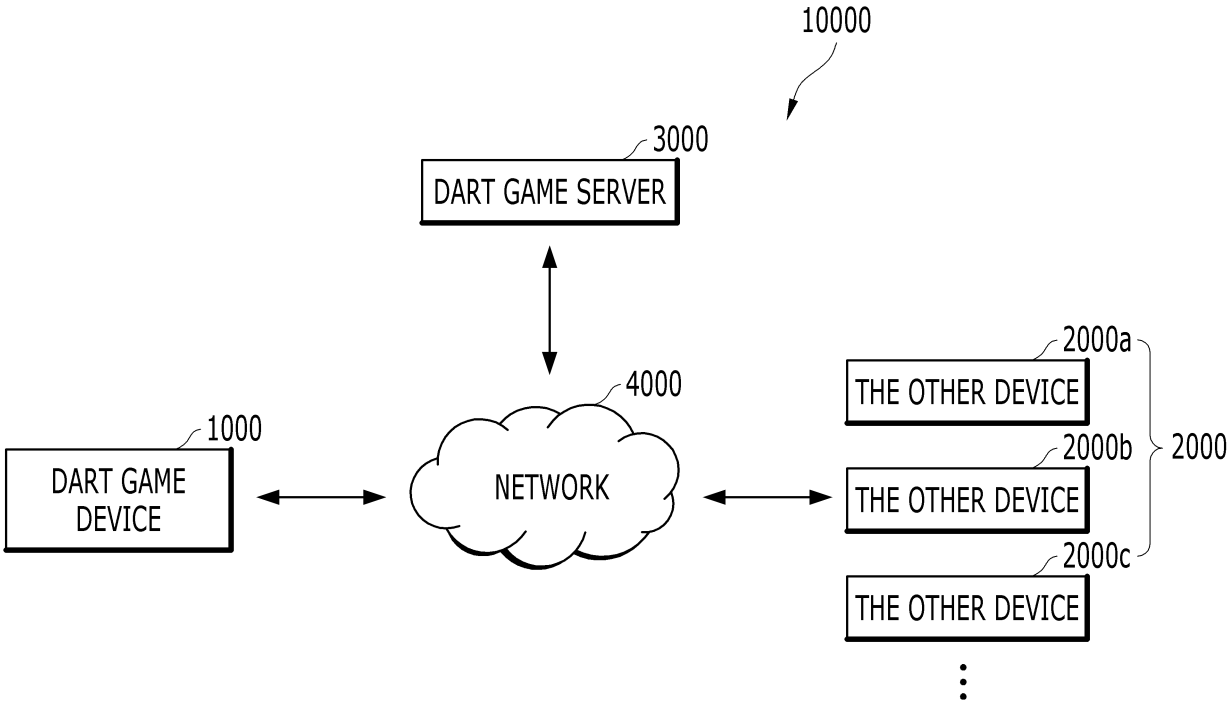

10000
3000
DART GAME SERVER
4000
1000
DART GAME DEVICE
NETWORK
2000a
THE OTHER DEVICE
2000b
THE OTHER DEVICE
2000c
THE OTHER DEVICE
2000

Fig. 1

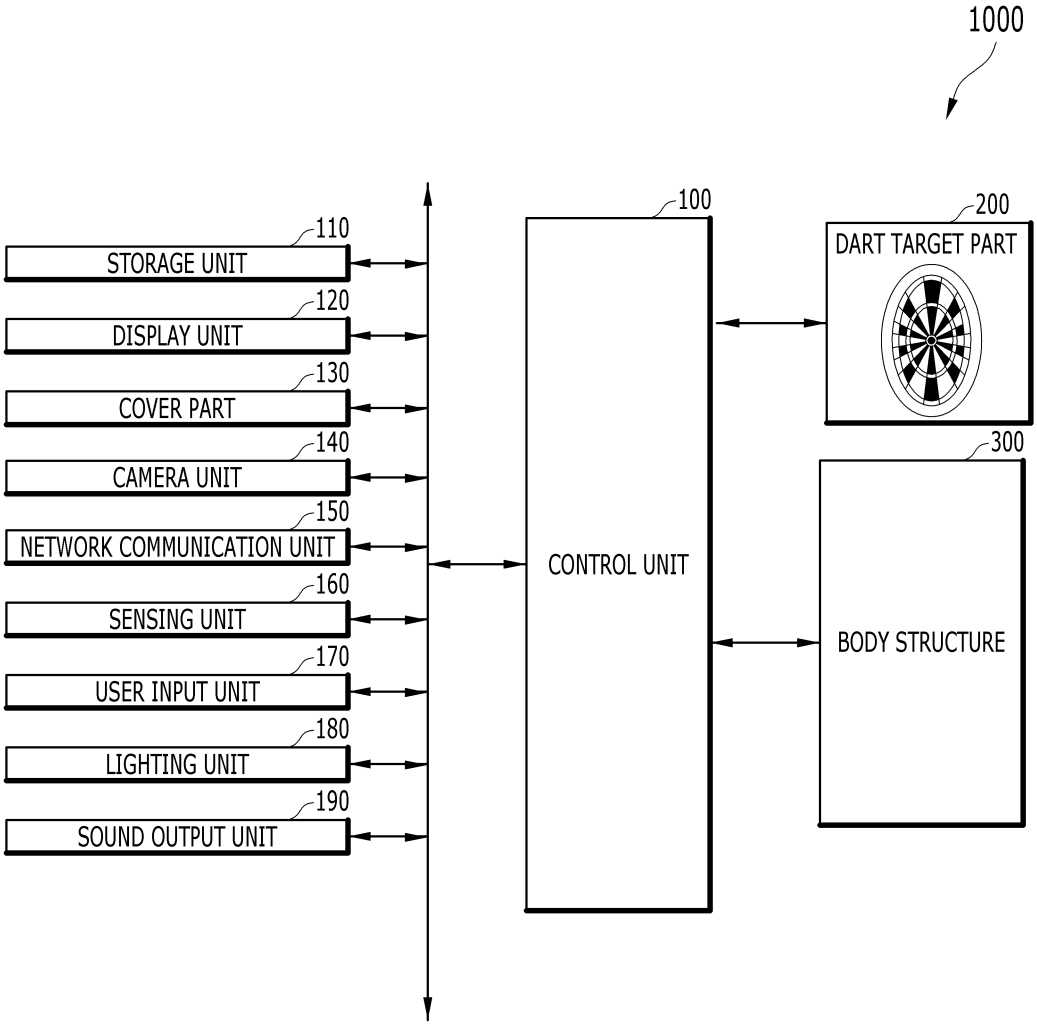

1000
100
CONTROL UNIT
110
STORAGE UNIT
120
DISPLAY UNIT
130
COVER PART
140
CAMERA UNIT
150
NETWORK COMMUNICATION UNIT
160
SENSING UNIT
170
USER INPUT UNIT
180
LIGHTING UNIT
190
SOUND OUTPUT UNIT
200
DART TARGET PART
300
BODY STRUCTURE

Fig. 2

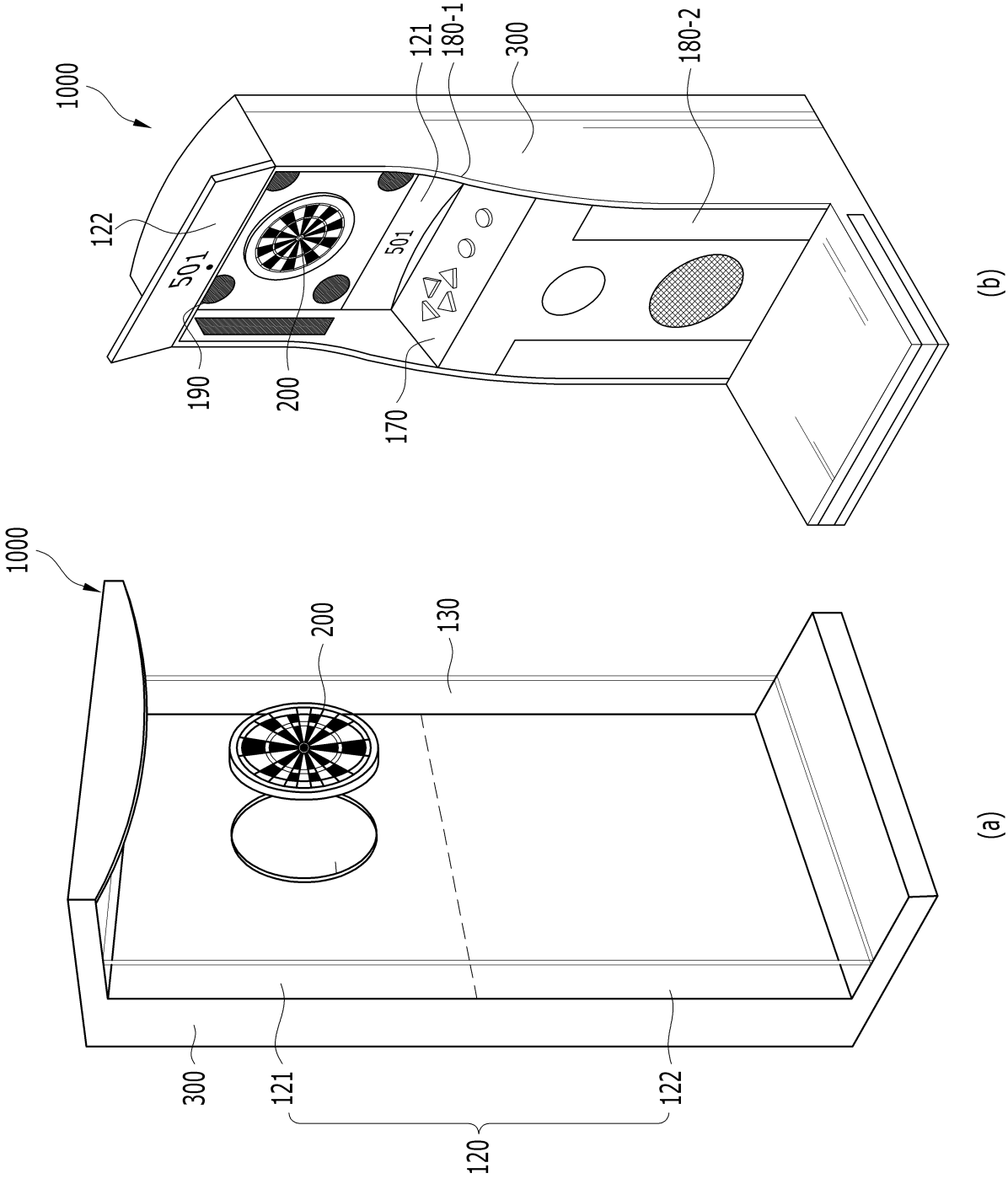

1000
121
180-1
300
180-2
122
190
200
170
(b)
1000
200
130
300
121
122
120
(a)

Fig. 3

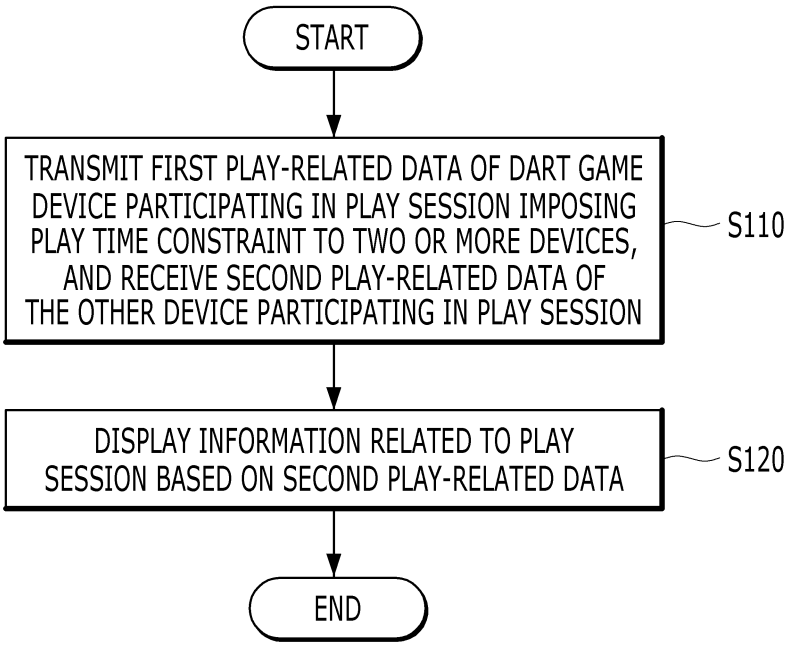

START
TRANSMIT FIRST PLAY-RELATED DATA OF DART GAME DEVICE PARTICIPATING IN PLAY SESSION IMPOSING PLAY TIME CONSTRAINT TO TWO OR MORE DEVICES, AND RECEIVE SECOND PLAY-RELATED DATA OF THE OTHER DEVICE PARTICIPATING IN PLAY SESSION
S110
DISPLAY INFORMATION RELATED TO PLAY SESSION BASED ON SECOND PLAY-RELATED DATA
S120
END

Fig. 4

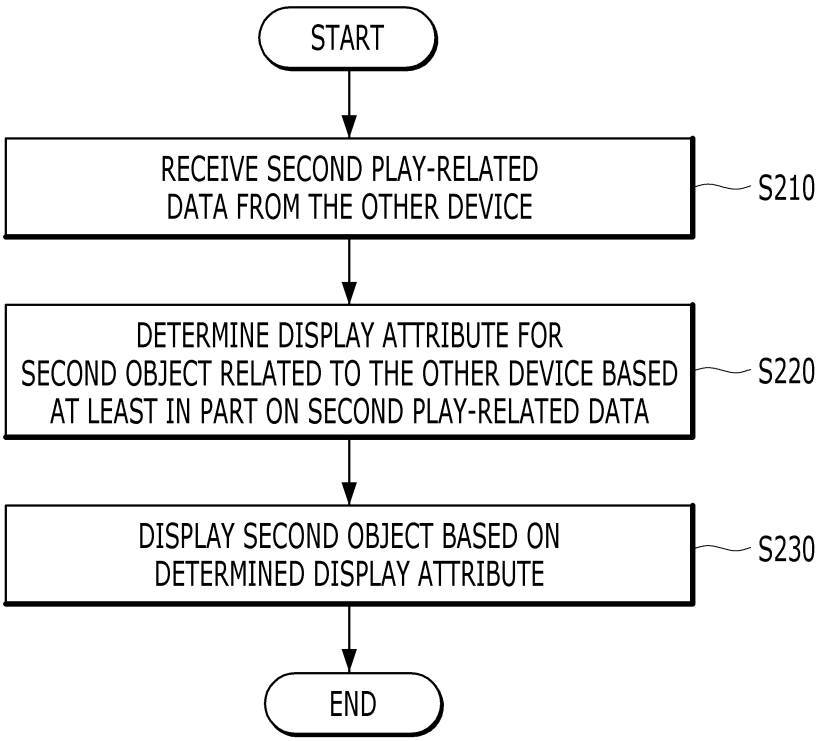
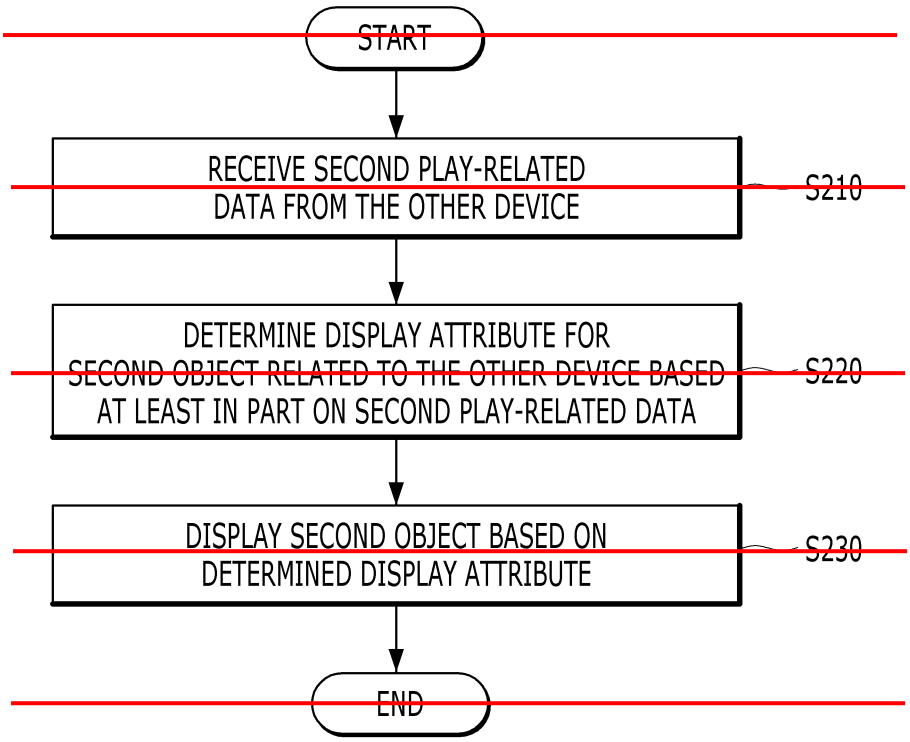

START
RECEIVE SECOND PLAY-RELATED DATA FROM THE OTHER DEVICE
S210
DETERMINE DISPLAY ATTRIBUTE FOR SECOND OBJECT RELATED TO THE OTHER DEVICE BASED AT LEAST IN PART ON SECOND PLAY-RELATED DATA
S220
DISPLAY SECOND OBJECT BASED ON DETERMINED DISPLAY ATTRIBUTE
S230
END

Fig. 5


START
RECEIVE SECOND PLAY-RELATED DATA FROM THE OTHER DEVICE
S210
DETERMINE DISPLAY ATTRIBUTE FOR SECOND OBJECT RELATED TO THE OTHER DEVICE BASED AT LEAST IN PART ON SECOND PLAY-RELATED DATA
S220
DISPLAY SECOND OBJECT BASED ON DETERMINED DISPLAY ATTRIBUTE
S230
END

~~Fig. 6~~

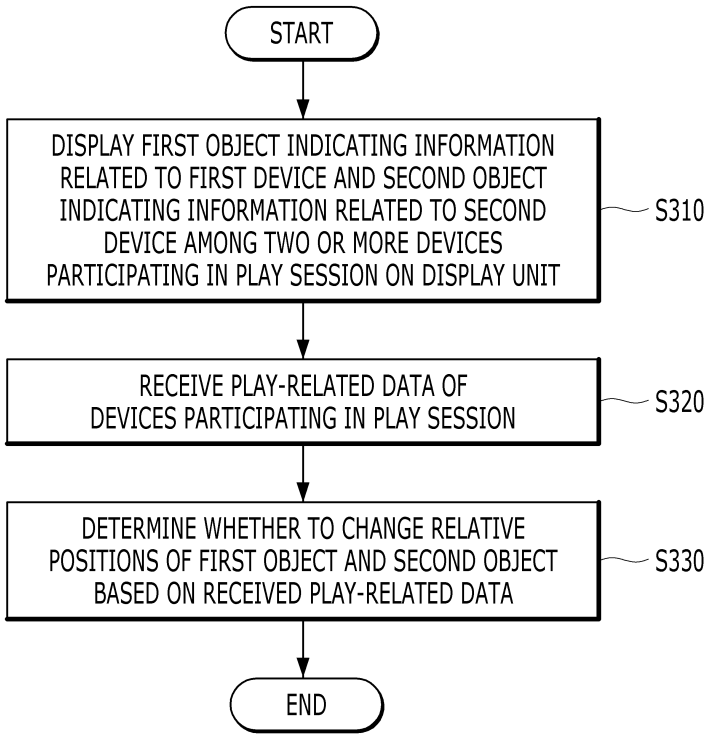

START
DISPLAY FIRST OBJECT INDICATING INFORMATION RELATED TO FIRST DEVICE AND SECOND OBJECT INDICATING INFORMATION RELATED TO SECOND DEVICE AMONG TWO OR MORE DEVICES PARTICIPATING IN PLAY SESSION ON DISPLAY UNIT
S310
RECEIVE PLAY-RELATED DATA OF DEVICES PARTICIPATING IN PLAY SESSION
S320
DETERMINE WHETHER TO CHANGE RELATIVE POSITIONS OF FIRST OBJECT AND SECOND OBJECT BASED ON RECEIVED PLAY-RELATED DATA
S330
END

Fig. 6

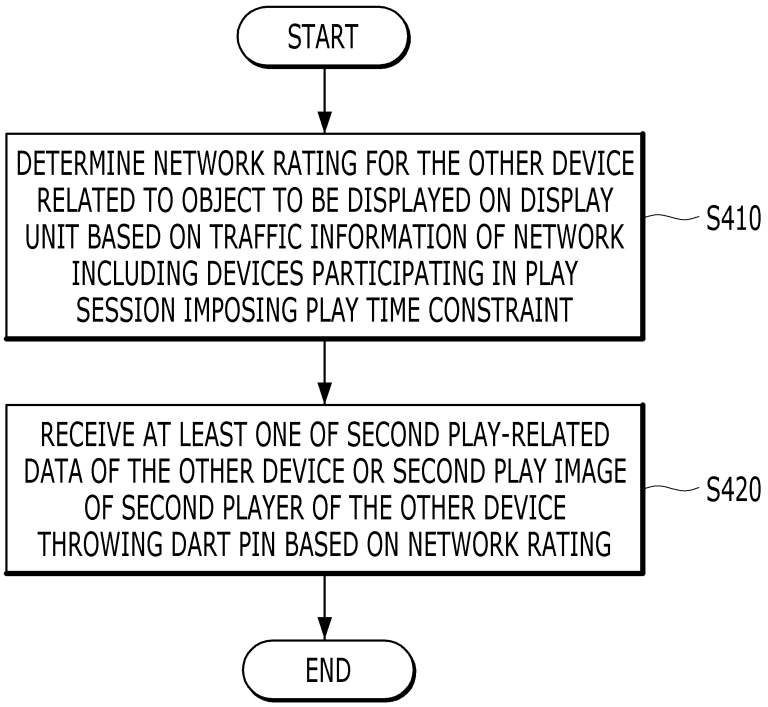

START
DETERMINE NETWORK RATING FOR THE OTHER DEVICE RELATED TO OBJECT TO BE DISPLAYED ON DISPLAY UNIT BASED ON TRAFFIC INFORMATION OF NETWORK INCLUDING DEVICES PARTICIPATING IN PLAY SESSION IMPOSING PLAY TIME CONSTRAINT
S410
RECEIVE AT LEAST ONE OF SECOND PLAY-RELATED DATA OF THE OTHER DEVICE OR SECOND PLAY IMAGE OF SECOND PLAYER OF THE OTHER DEVICE THROWING DART PIN BASED ON NETWORK RATING
S420
END

Fig. 7

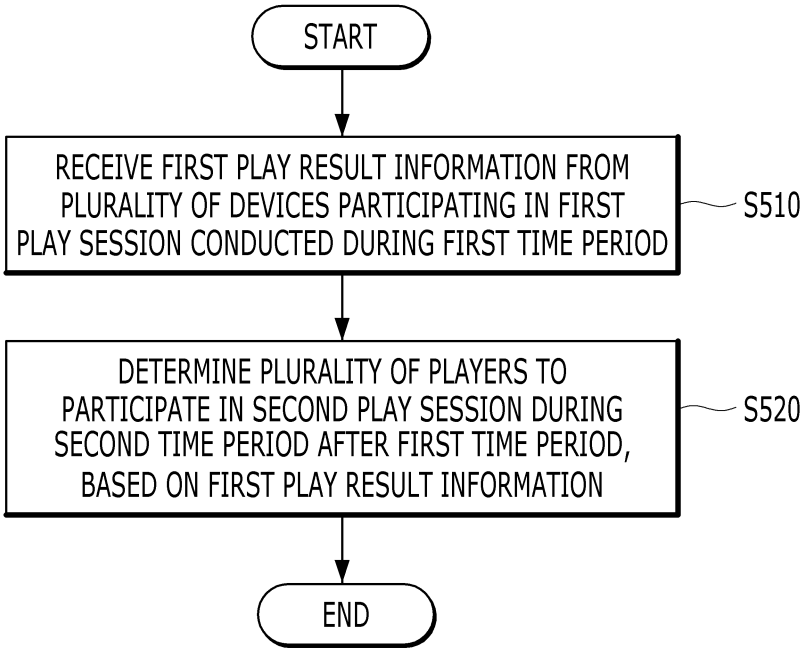

START
RECEIVE FIRST PLAY RESULT INFORMATION FROM PLURALITY OF DEVICES PARTICIPATING IN FIRST PLAY SESSION CONDUCTED DURING FIRST TIME PERIOD
S510
DETERMINE PLURALITY OF PLAYERS TO PARTICIPATE IN SECOND PLAY SESSION DURING SECOND TIME PERIOD AFTER FIRST TIME PERIOD, BASED ON FIRST PLAY RESULT INFORMATION
S520
END

Fig. 8

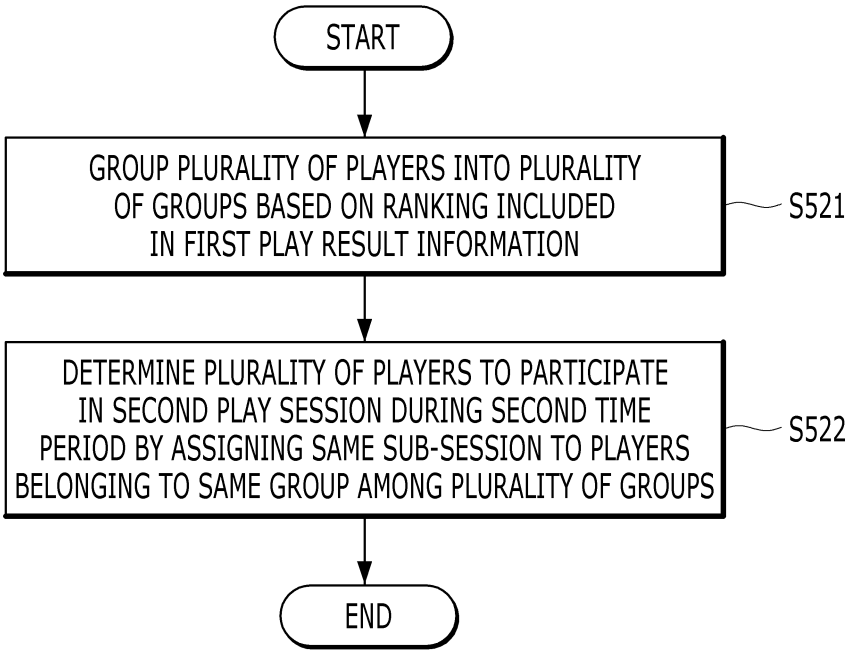
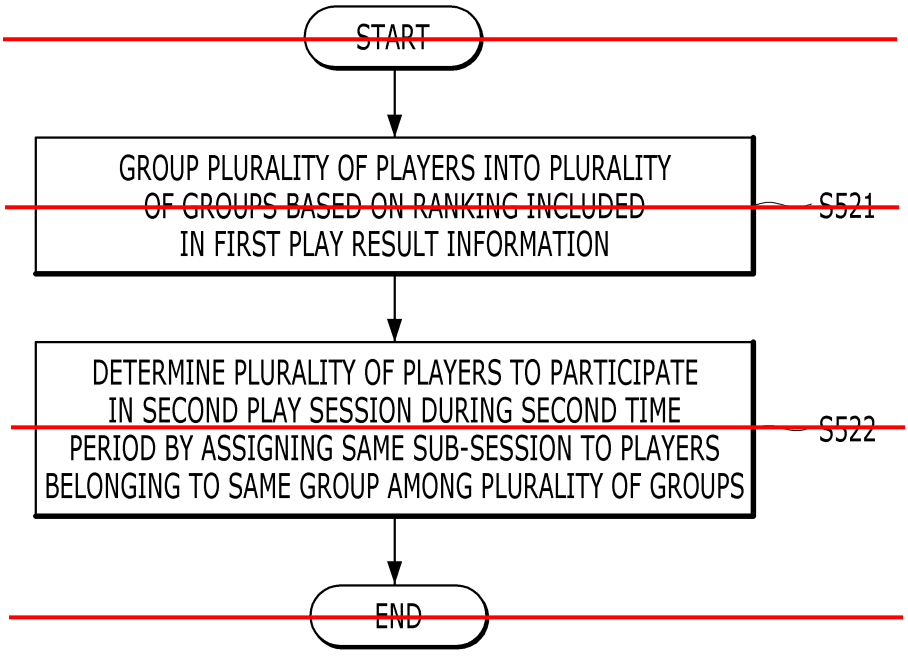

START
GROUP PLURALITY OF PLAYERS INTO PLURALITY OF GROUPS BASED ON RANKING INCLUDED IN FIRST PLAY RESULT INFORMATION
S521
DETERMINE PLURALITY OF PLAYERS TO PARTICIPATE IN SECOND PLAY SESSION DURING SECOND TIME PERIOD BY ASSIGNING SAME SUB-SESSION TO PLAYERS BELONGING TO SAME GROUP AMONG PLURALITY OF GROUPS
S522
END

Fig. 9


START
GROUP PLURALITY OF PLAYERS INTO PLURALITY OF GROUPS BASED ON RANKING INCLUDED IN FIRST PLAY RESULT INFORMATION
S521
DETERMINE PLURALITY OF PLAYERS TO PARTICIPATE IN SECOND PLAY SESSION DURING SECOND TIME PERIOD BY ASSIGNING SAME SUB-SESSION TO PLAYERS BELONGING TO SAME GROUP AMONG PLURALITY OF GROUPS
S522
END

~~**Fig. 10**~~

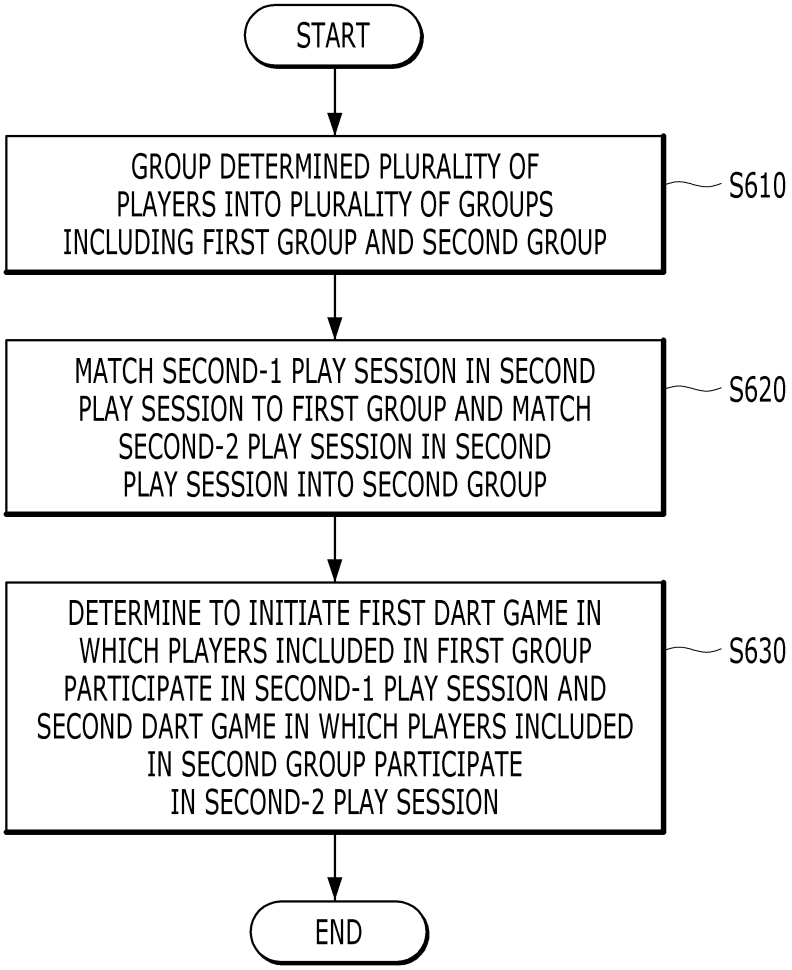

START
GROUP DETERMINED PLURALITY OF PLAYERS INTO PLURALITY OF GROUPS INCLUDING FIRST GROUP AND SECOND GROUP
S610
MATCH SECOND-1 PLAY SESSION IN SECOND PLAY SESSION TO FIRST GROUP AND MATCH SECOND-2 PLAY SESSION IN SECOND PLAY SESSION INTO SECOND GROUP
S620
DETERMINE TO INITIATE FIRST DART GAME IN WHICH PLAYERS INCLUDED IN FIRST GROUP PARTICIPATE IN SECOND-1 PLAY SESSION AND SECOND DART GAME IN WHICH PLAYERS INCLUDED IN SECOND GROUP PARTICIPATE IN SECOND-2 PLAY SESSION
S630
END

Fig. 10

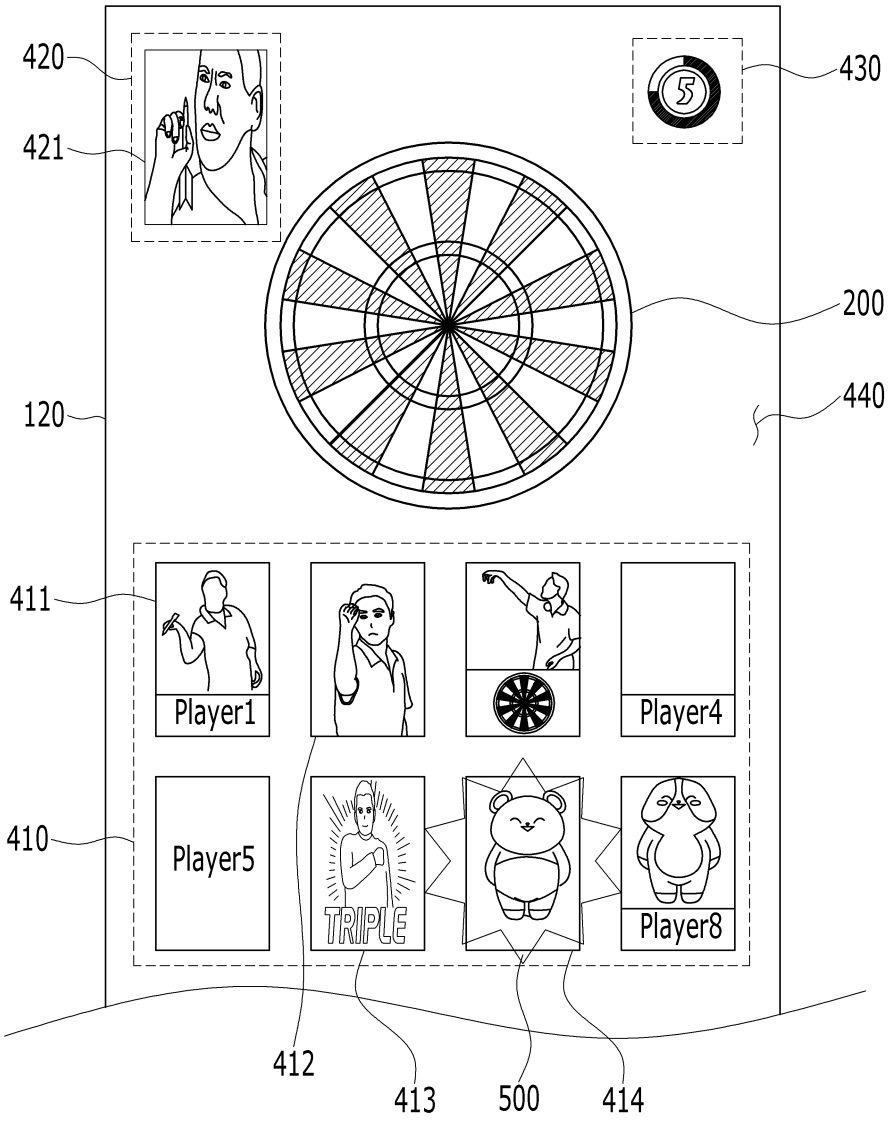

420
421
430
200
120
440
411
Player1
Player4
410
Player5
TRIPLE
Player8
412
413
500
414

Fig. 11

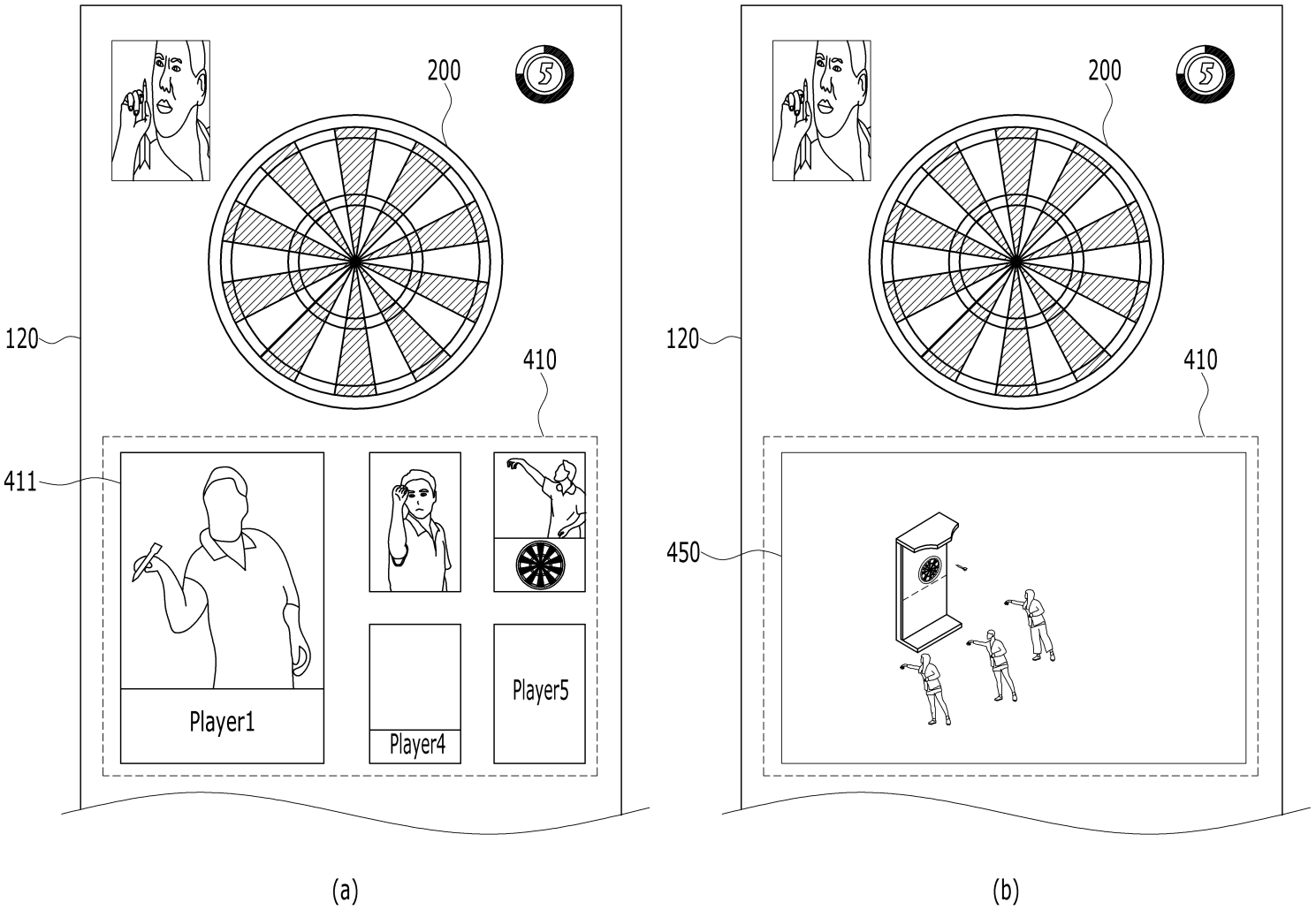


Fig. 12

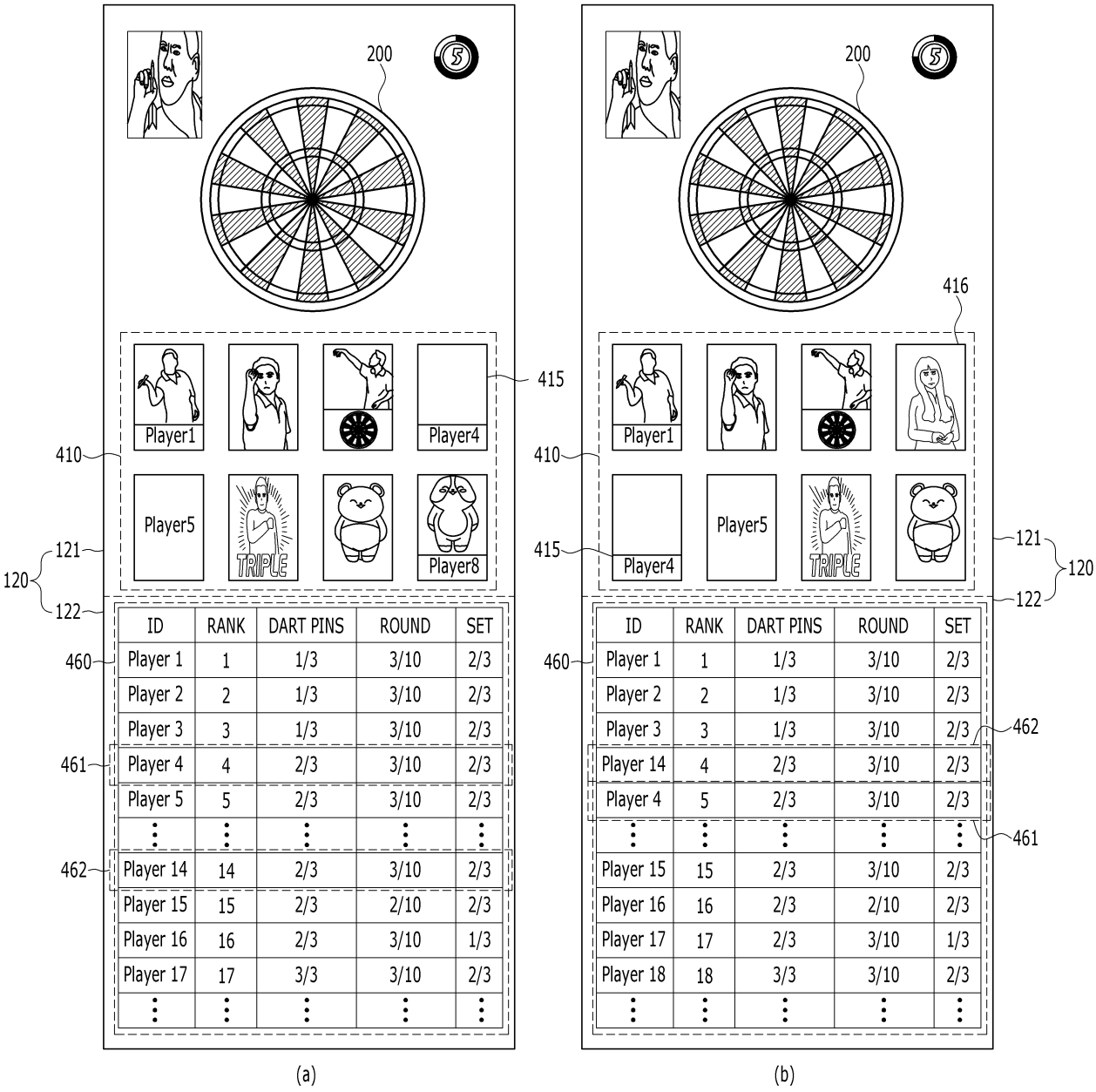

200
Player1
Player4
Player5
Player8
TRIPLE
410
415
120
121
122
460
461
462
ID
RANK
DART PINS
ROUND
SET
Player 1 1 1/3 3/10 2/3
Player 2 2 1/3 3/10 2/3
Player 3 3 1/3 3/10 2/3
Player 4 4 2/3 3/10 2/3
Player 5 5 2/3 3/10 2/3
Player 14 14 2/3 3/10 2/3
Player 15 15 2/3 2/10 2/3
Player 16 16 2/3 3/10 1/3
Player 17 17 3/3 3/10 2/3
(a)
200
416
Player1
Player5
Player4
TRIPLE
410
415
120
121
122
460
461
462
ID
RANK
DART PINS
ROUND
SET
Player 1 1 1/3 3/10 2/3
Player 2 2 1/3 3/10 2/3
Player 3 3 1/3 3/10 2/3
Player 14 4 2/3 3/10 2/3
Player 4 5 2/3 3/10 2/3
Player 15 15 2/3 3/10 2/3
Player 16 16 2/3 2/10 2/3
Player 17 17 2/3 3/10 1/3
Player 18 18 3/3 3/10 2/3
(b)

Fig. 13

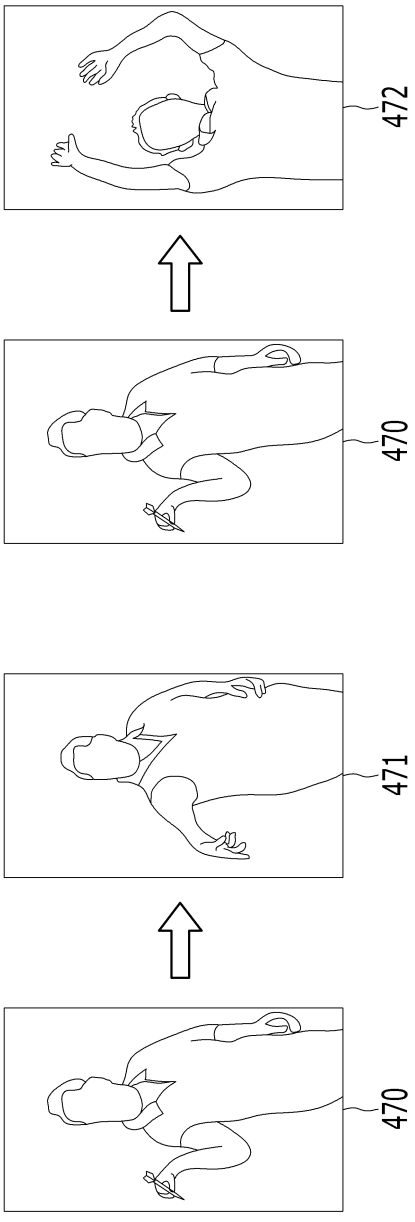


Fig. 14

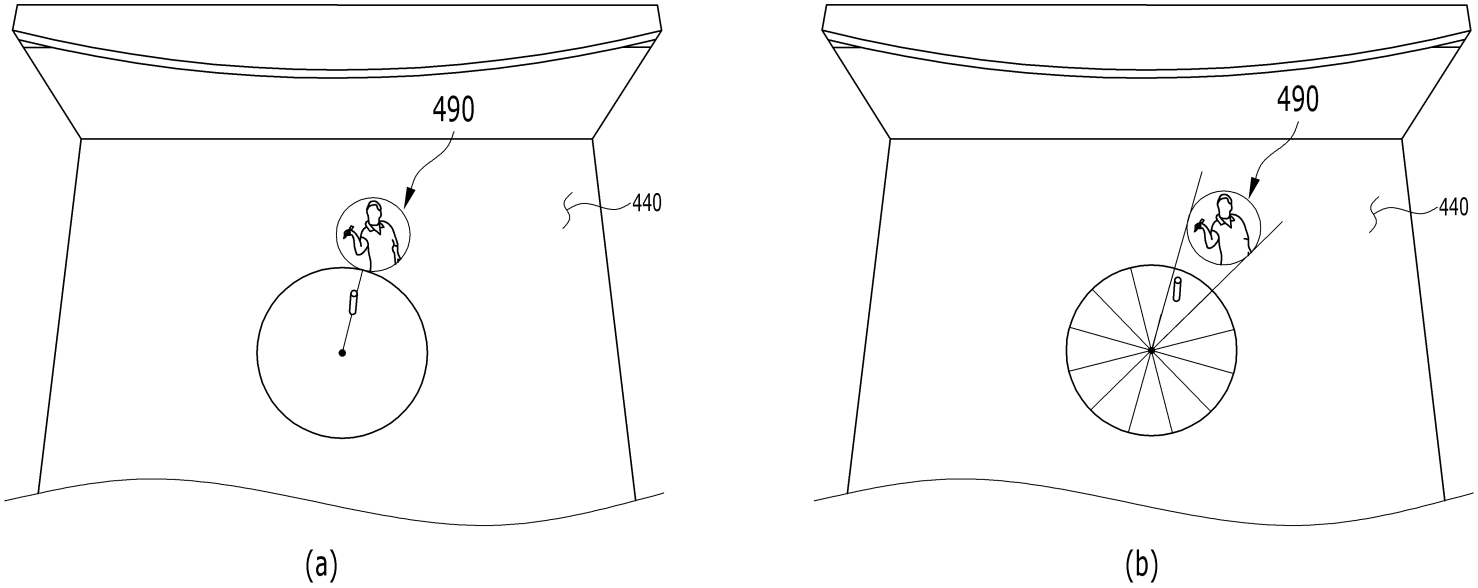


Fig. 15

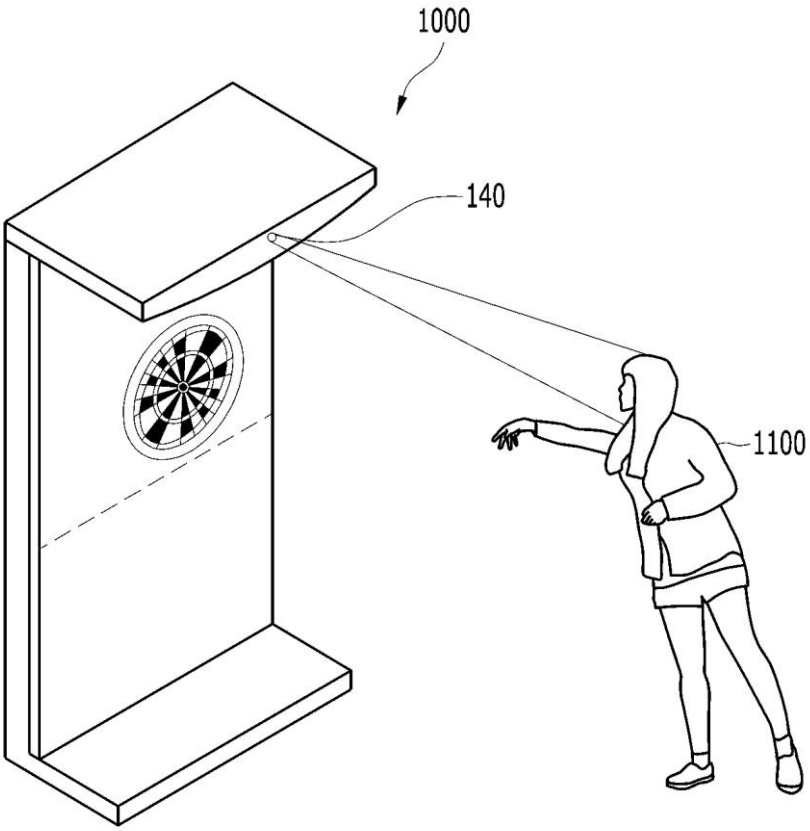


Fig. 16

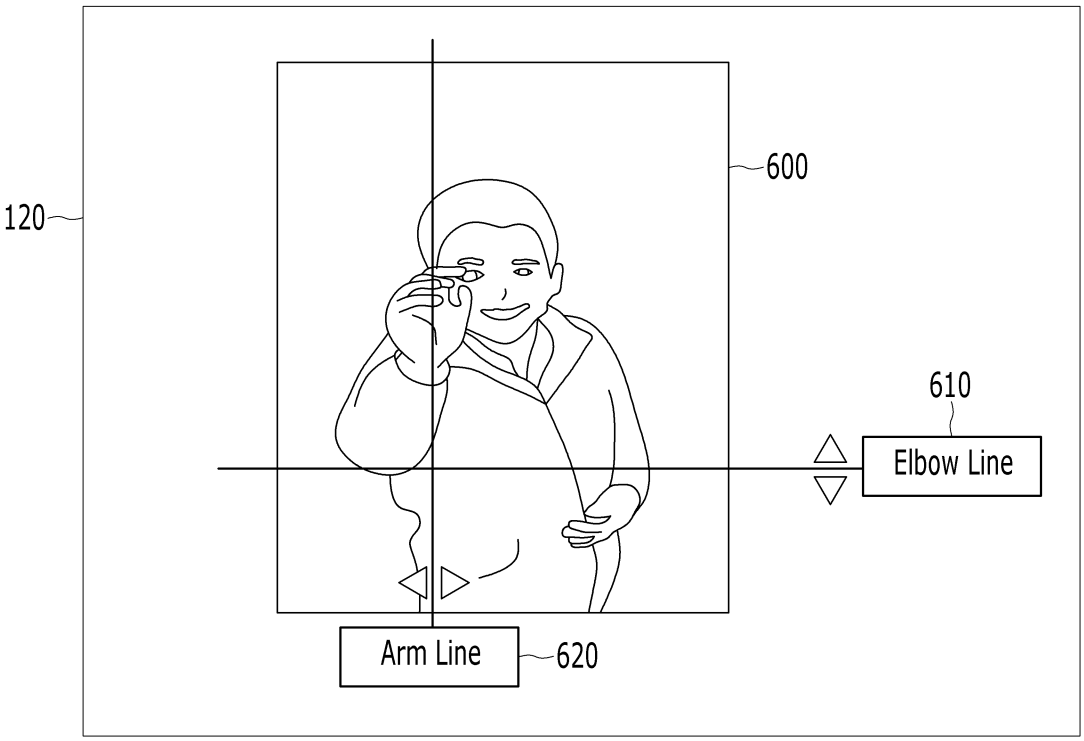

120
600
610
Elbow Line
Arm Line
620

Fig. 17

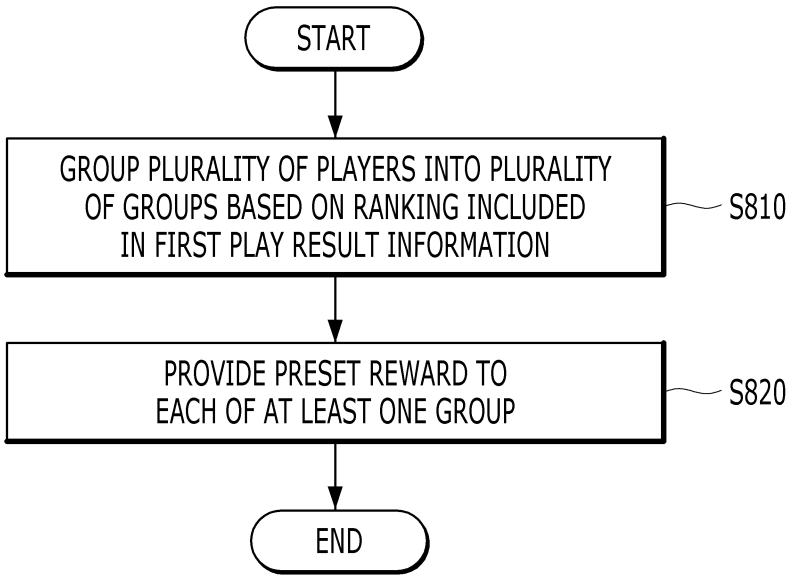

START
GROUP PLURALITY OF PLAYERS INTO PLURALITY OF GROUPS BASED ON RANKING INCLUDED IN FIRST PLAY RESULT INFORMATION
S810
PROVIDE PRESET REWARD TO EACH OF AT LEAST ONE GROUP
S820
END

Fig. 18