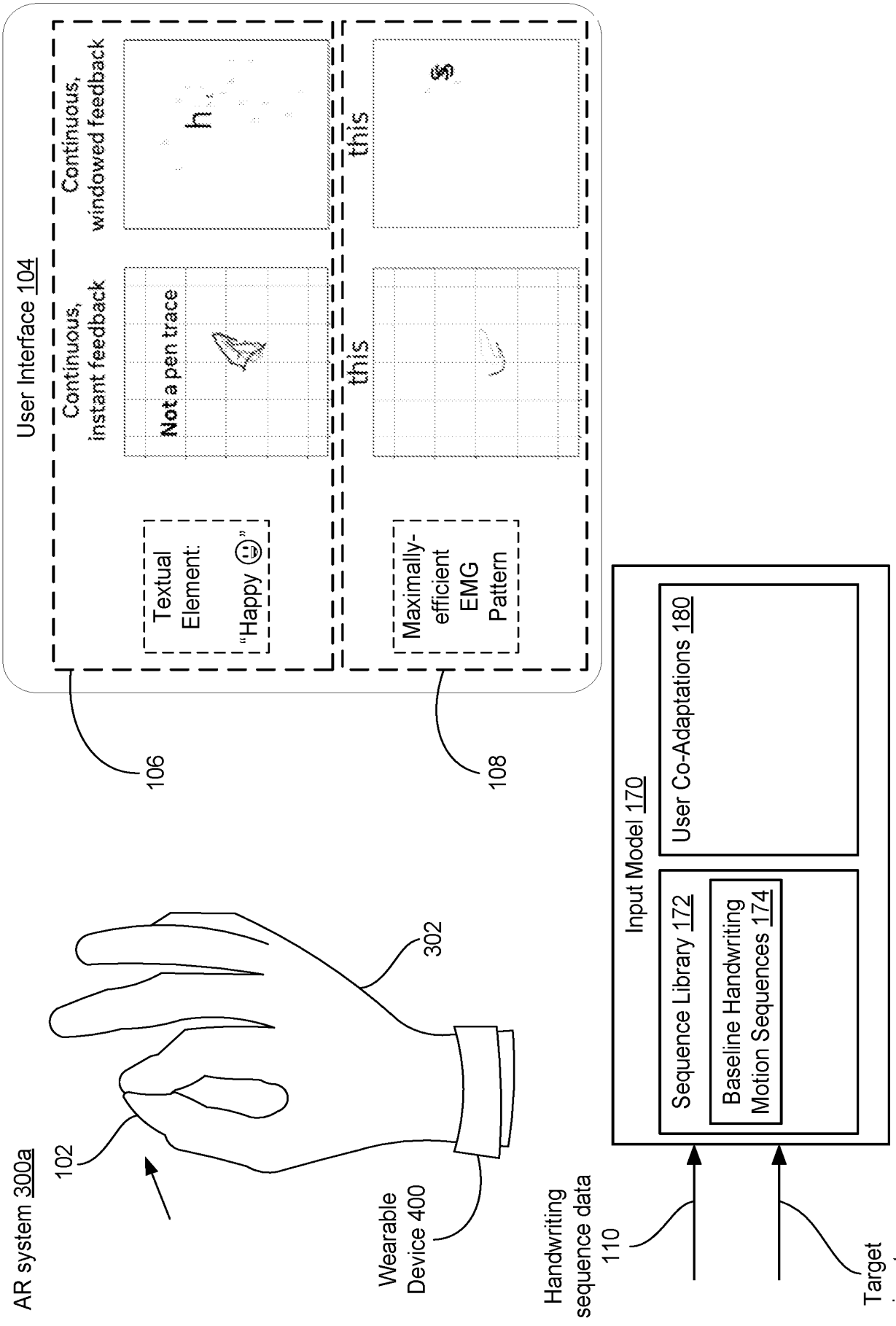

AR system 300a
102
302
Wearable Device 400
User Interface 104
Continuous, instant feedback
Not a pen trace
Textual Element: "Happy"
106
Continuous, windowed feedback
this
this
Maximally-efficient EMG Pattern
108
Input Model 170
Sequence Library 172
Baseline Handwriting Motion Sequences 174
User Co-Adaptations 180
Handwriting sequence data 110
Target inputs 112

Figure 1A

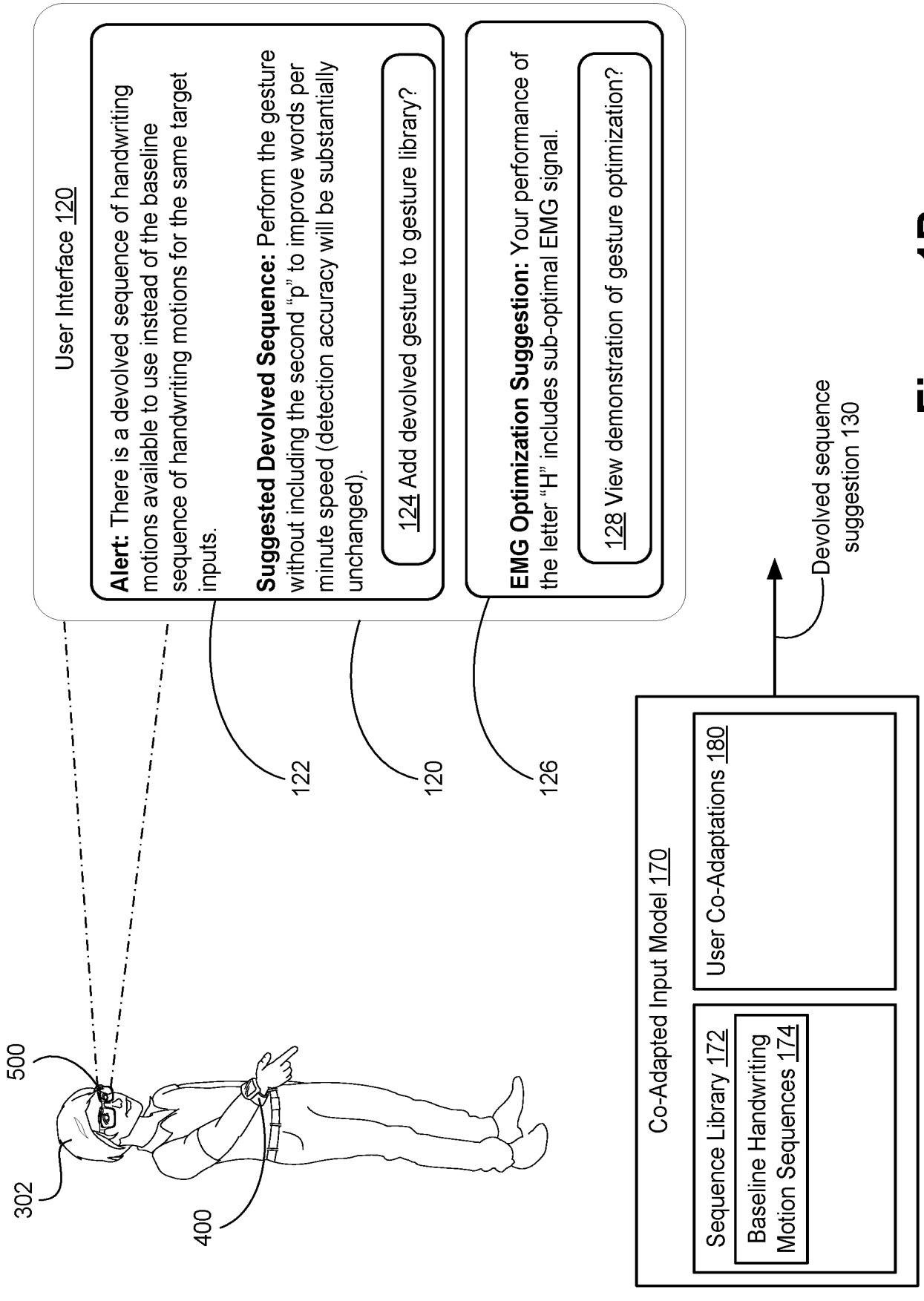

User Interface 120
Alert: There is a devolved sequence of handwriting motions available to use instead of the baseline sequence of handwriting motions for the same target inputs.
Suggested Devolved Sequence: Perform the gesture without including the second "p" to improve words per minute speed (detection accuracy will be substantially unchanged).
124 Add devolved gesture to gesture library?
EMG Optimization Suggestion: Your performance of the letter "H" includes sub-optimal EMG signal.
128 View demonstration of gesture optimization?
122
120
126
Devolved sequence suggestion 130
Co-Adapted Input Model 170
Sequence Library 172
Baseline Handwriting Motion Sequences 174
User Co-Adaptations 180
500
302
400

Figure 1B

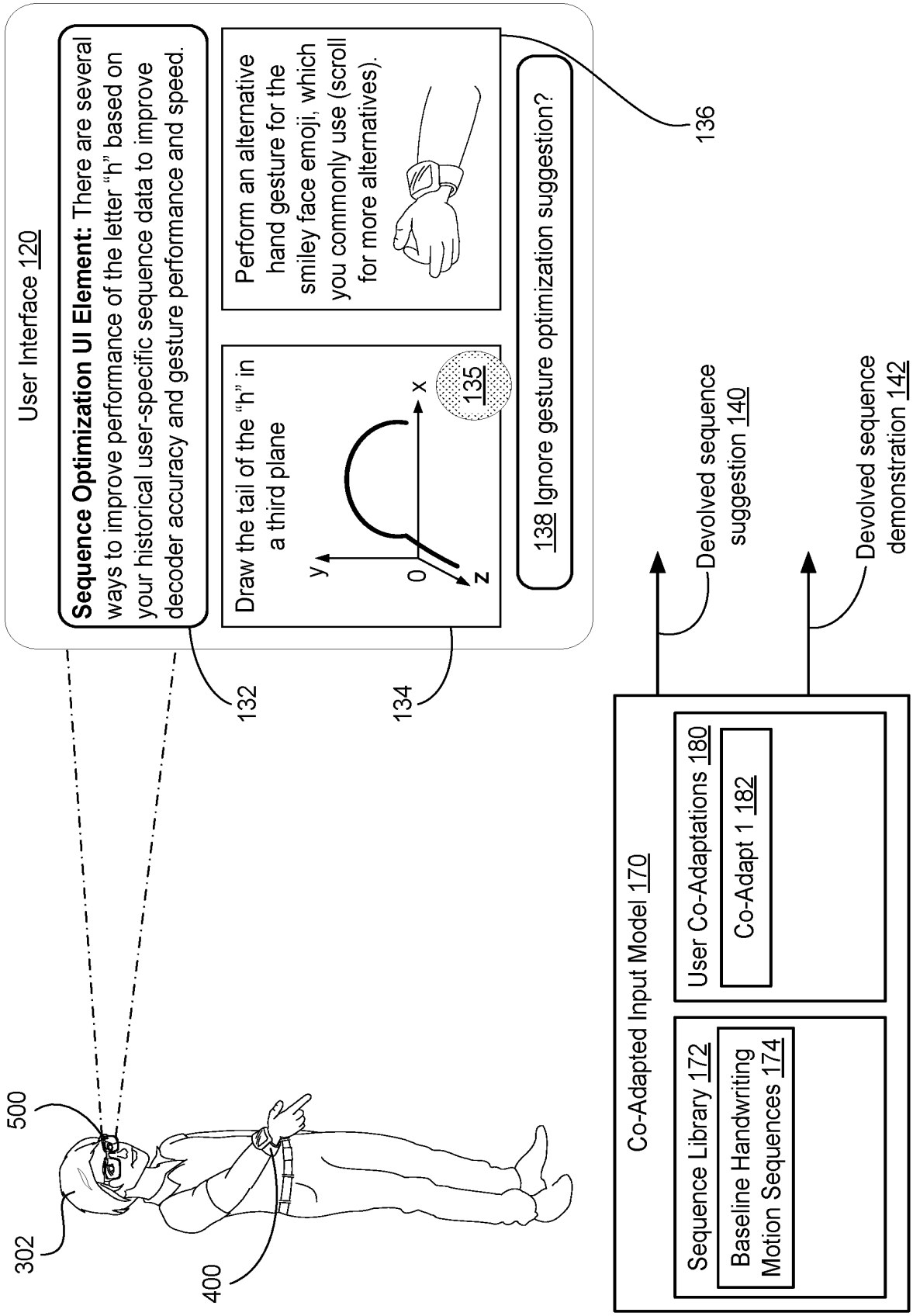

User Interface 120
Sequence Optimization UI Element: There are several ways to improve performance of the letter "h" based on your historical user-specific sequence data to improve decoder accuracy and gesture performance and speed.
Draw the tail of the "h" in a third plane
y
x
0
z
135
Perform an alternative hand gesture for the smiley face emoji, which you commonly use (scroll for more alternatives).
138 Ignore gesture optimization suggestion?
132
134
136
500
302
400
Co-Adapted Input Model 170
Sequence Library 172
Baseline Handwriting Motion Sequences 174
User Co-Adaptations 180
Co-Adapt 1 182
Devolved sequence suggestion 140
Devolved sequence demonstration 142

Figure 1C

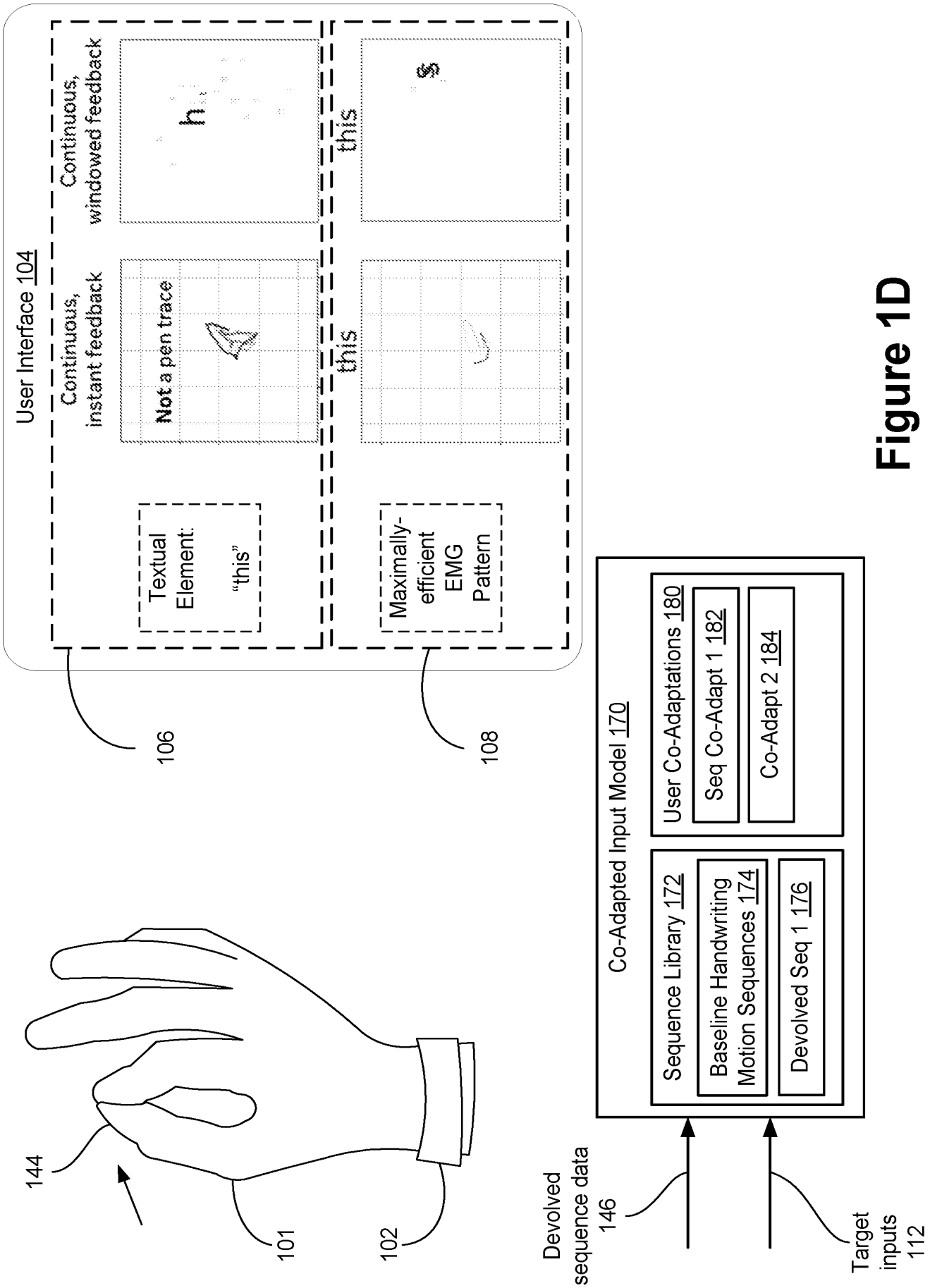

User Interface 104
Continuous, instant feedback
Not a pen trace
Continuous, windowed feedback
this
this
Textual Element: "this"
Maximally-efficient EMG Pattern
106
108
144
101
102
Co-Adapted Input Model 170
Sequence Library 172
Baseline Handwriting Motion Sequences 174
Devolved Seq 1 176
User Co-Adaptations 180
Seq Co-Adapt 1 182
Co-Adapt 2 184
Devolved sequence data 146
Target inputs 112

Figure 1D

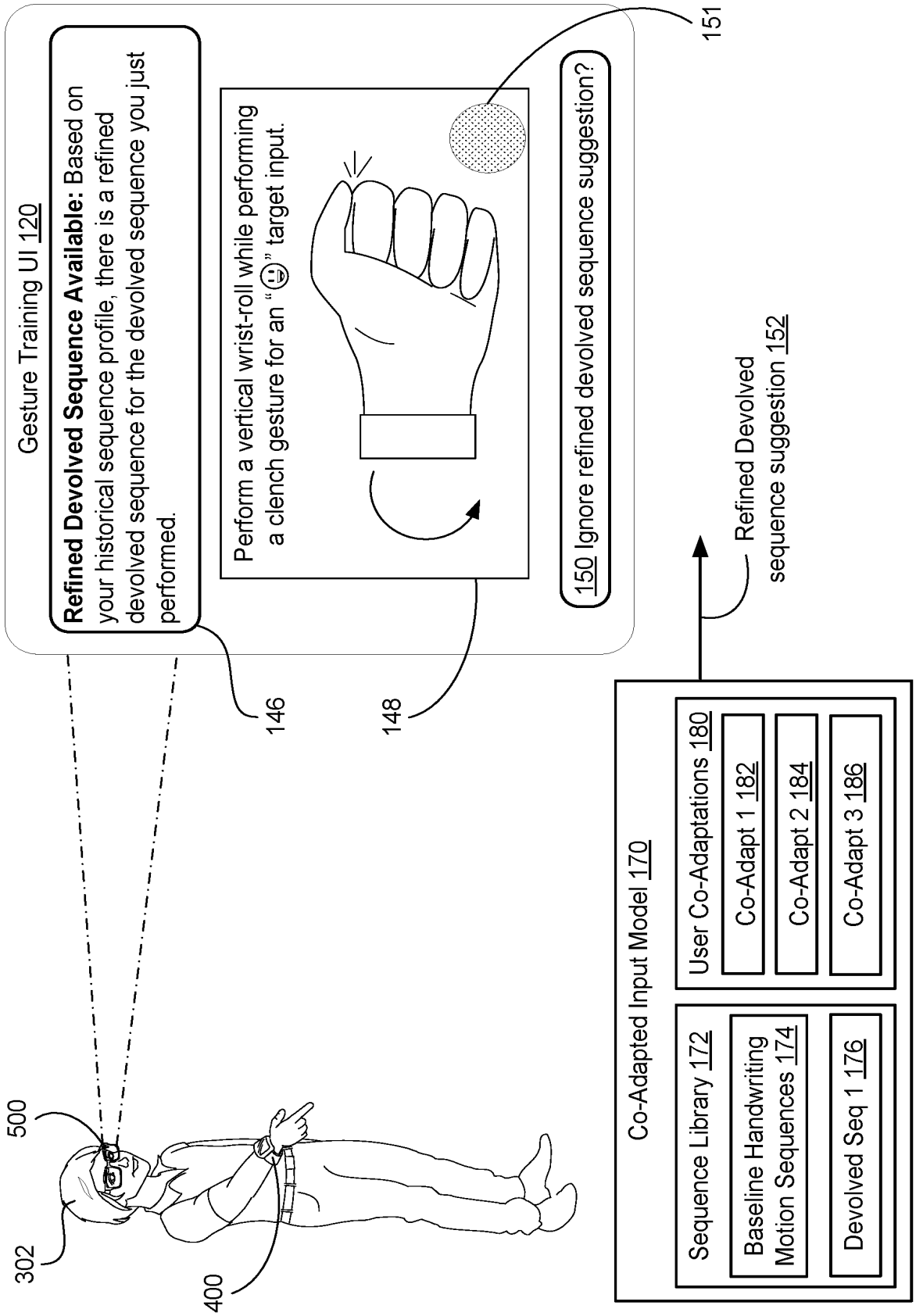

Gesture Training UI 120
Refined Devolved Sequence Available: Based on your historical sequence profile, there is a refined devolved sequence for the devolved sequence you just performed.
Perform a vertical wrist-roll while performing a clench gesture for an "☺" target input.
150 Ignore refined devolved sequence suggestion?
151
146
148
500
302
400
Co-Adapted Input Model 170
Sequence Library 172
Baseline Handwriting Motion Sequences 174
Devolved Seq 1 176
User Co-Adaptations 180
Co-Adapt 1 182
Co-Adapt 2 184
Co-Adapt 3 186
Refined Devolved sequence suggestion 152

Figure 1E

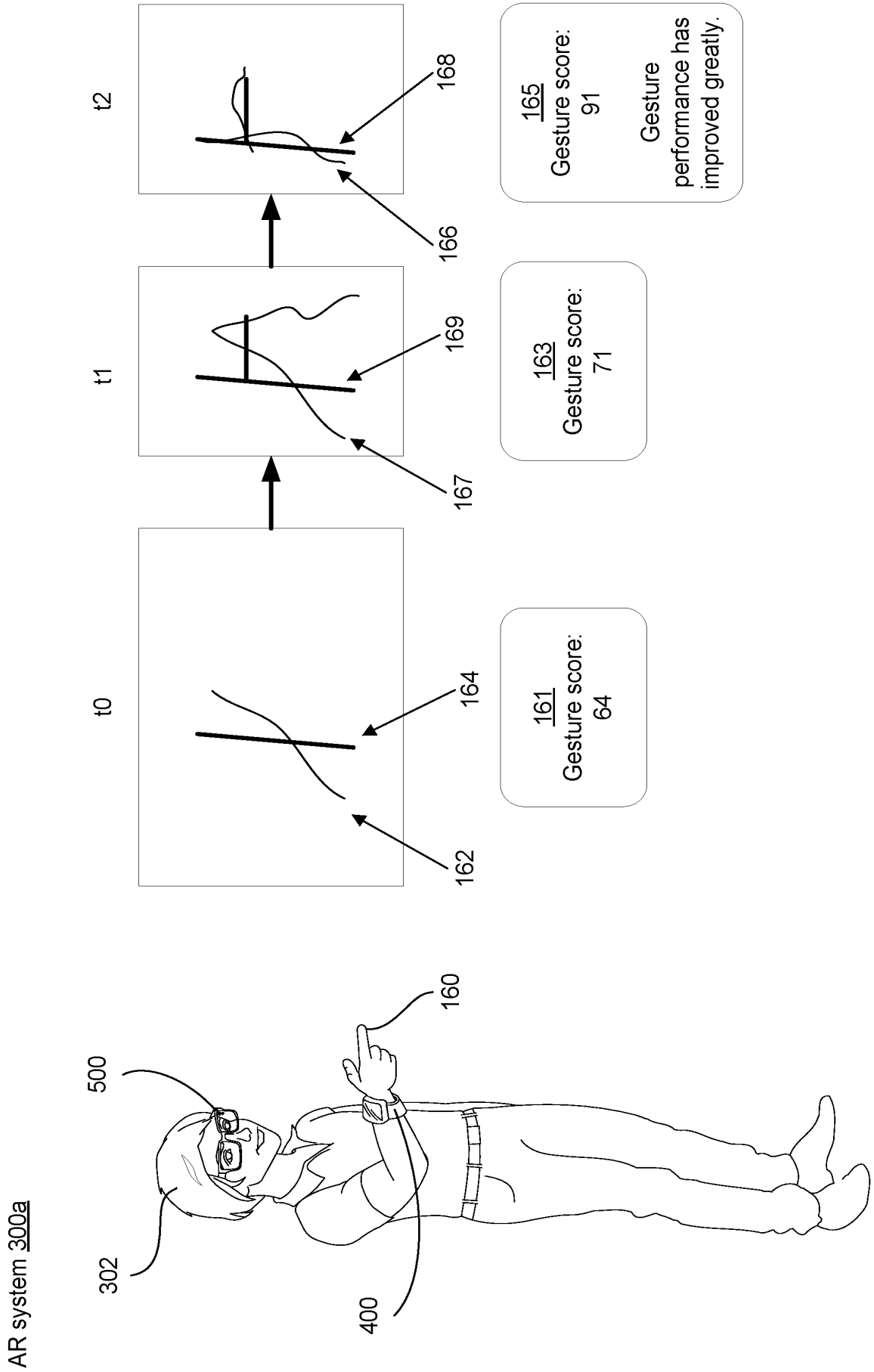

AR system 300a
500
302
160
400
t0
t1
t2
162
164
167
169
166
168
161
Gesture score:
64
163
Gesture score:
71
165
Gesture score:
91
Gesture performance has improved greatly.

Figure 1F

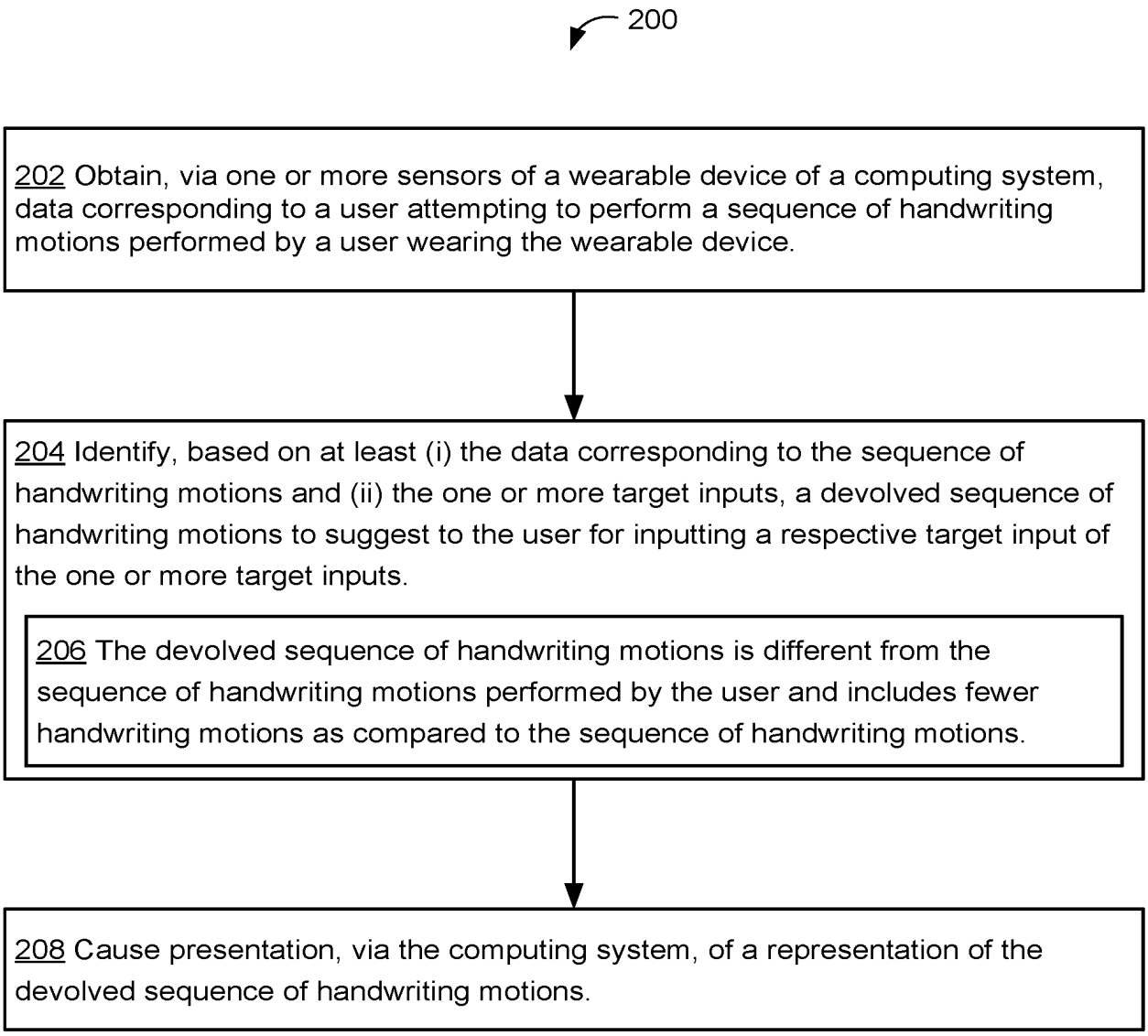

200
202 Obtain, via one or more sensors of a wearable device of a computing system, data corresponding to a user attempting to perform a sequence of handwriting motions performed by a user wearing the wearable device.
204 Identify, based on at least (i) the data corresponding to the sequence of handwriting motions and (ii) the one or more target inputs, a devolved sequence of handwriting motions to suggest to the user for inputting a respective target input of the one or more target inputs.
206 The devolved sequence of handwriting motions is different from the sequence of handwriting motions performed by the user and includes fewer handwriting motions as compared to the sequence of handwriting motions.
208 Cause presentation, via the computing system, of a representation of the devolved sequence of handwriting motions.

Figure 2

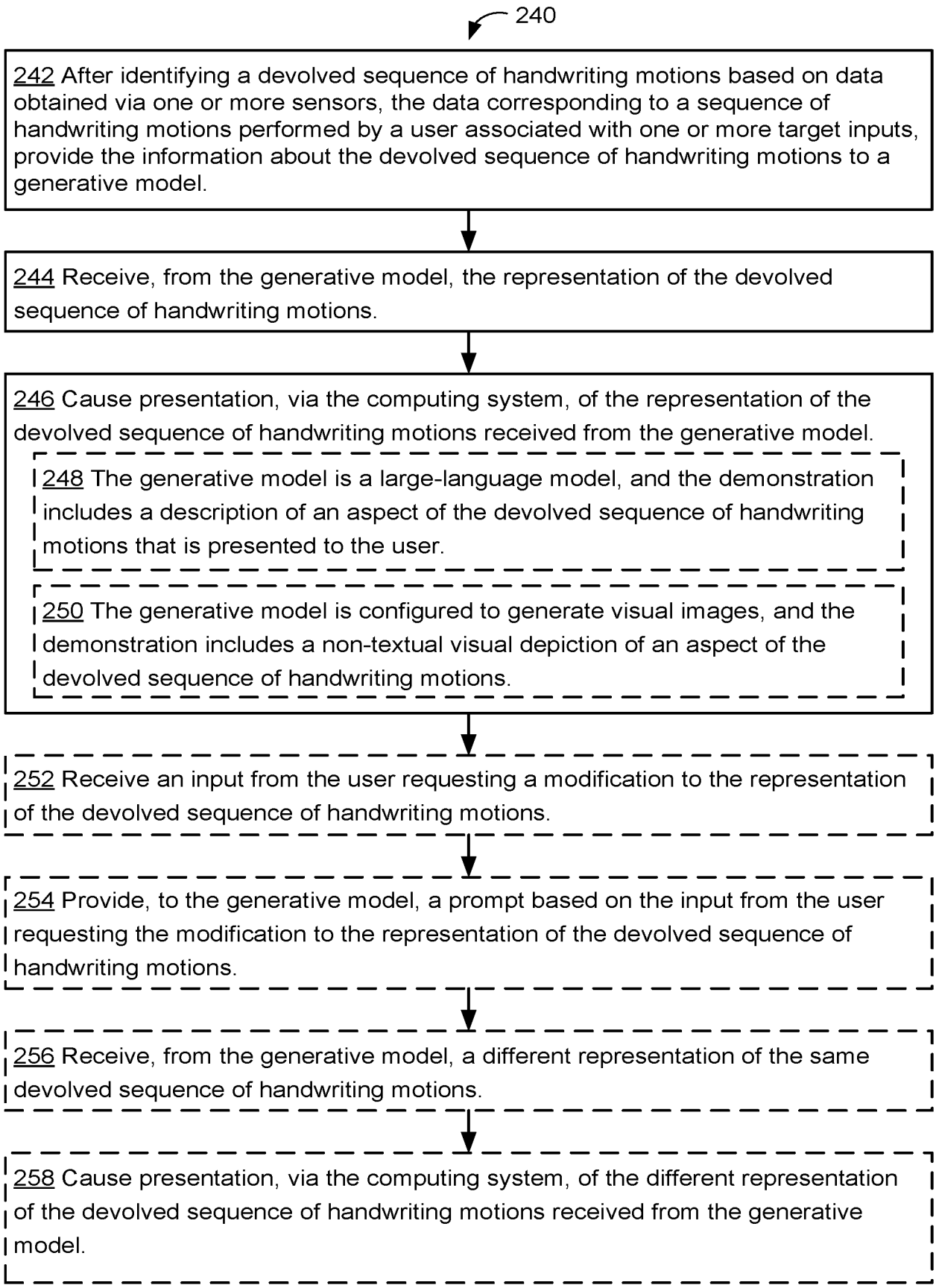

240
242 After identifying a devolved sequence of handwriting motions based on data obtained via one or more sensors, the data corresponding to a sequence of handwriting motions performed by a user associated with one or more target inputs, provide the information about the devolved sequence of handwriting motions to a generative model.
244 Receive, from the generative model, the representation of the devolved sequence of handwriting motions.
246 Cause presentation, via the computing system, of the representation of the devolved sequence of handwriting motions received from the generative model.
248 The generative model is a large-language model, and the demonstration includes a description of an aspect of the devolved sequence of handwriting motions that is presented to the user.
250 The generative model is configured to generate visual images, and the demonstration includes a non-textual visual depiction of an aspect of the devolved sequence of handwriting motions.
252 Receive an input from the user requesting a modification to the representation of the devolved sequence of handwriting motions.
254 Provide, to the generative model, a prompt based on the input from the user requesting the modification to the representation of the devolved sequence of handwriting motions.
256 Receive, from the generative model, a different representation of the same devolved sequence of handwriting motions.
258 Cause presentation, via the computing system, of the different representation of the devolved sequence of handwriting motions received from the generative model.

Figure 2B

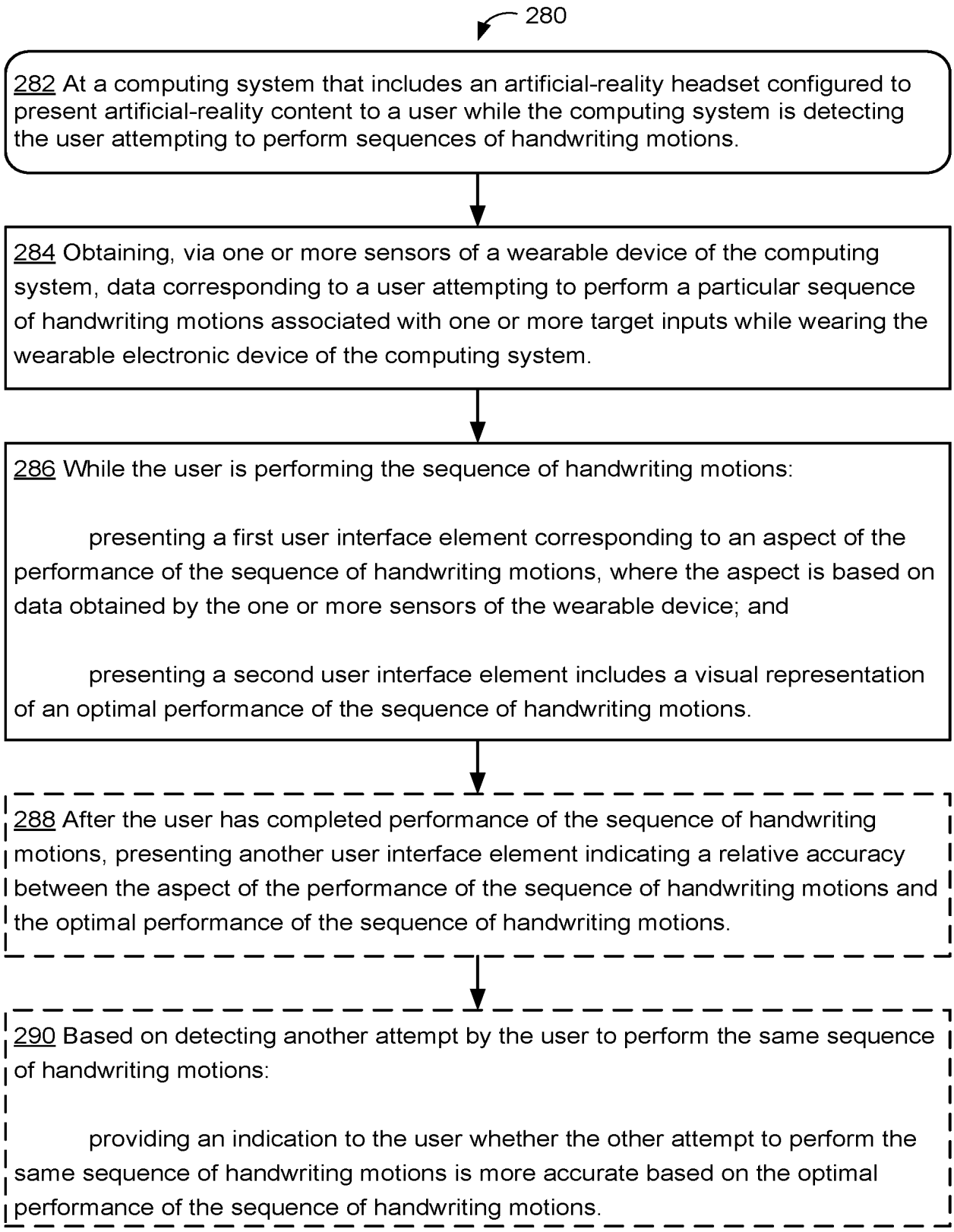

280
282 At a computing system that includes an artificial-reality headset configured to present artificial-reality content to a user while the computing system is detecting the user attempting to perform sequences of handwriting motions.
284 Obtaining, via one or more sensors of a wearable device of the computing system, data corresponding to a user attempting to perform a particular sequence of handwriting motions associated with one or more target inputs while wearing the wearable electronic device of the computing system.
286 While the user is performing the sequence of handwriting motions:
presenting a first user interface element corresponding to an aspect of the performance of the sequence of handwriting motions, where the aspect is based on data obtained by the one or more sensors of the wearable device; and
presenting a second user interface element includes a visual representation of an optimal performance of the sequence of handwriting motions.
288 After the user has completed performance of the sequence of handwriting motions, presenting another user interface element indicating a relative accuracy between the aspect of the performance of the sequence of handwriting motions and the optimal performance of the sequence of handwriting motions.
290 Based on detecting another attempt by the user to perform the same sequence of handwriting motions:
providing an indication to the user whether the other attempt to perform the same sequence of handwriting motions is more accurate based on the optimal performance of the sequence of handwriting motions.

Figure 2C

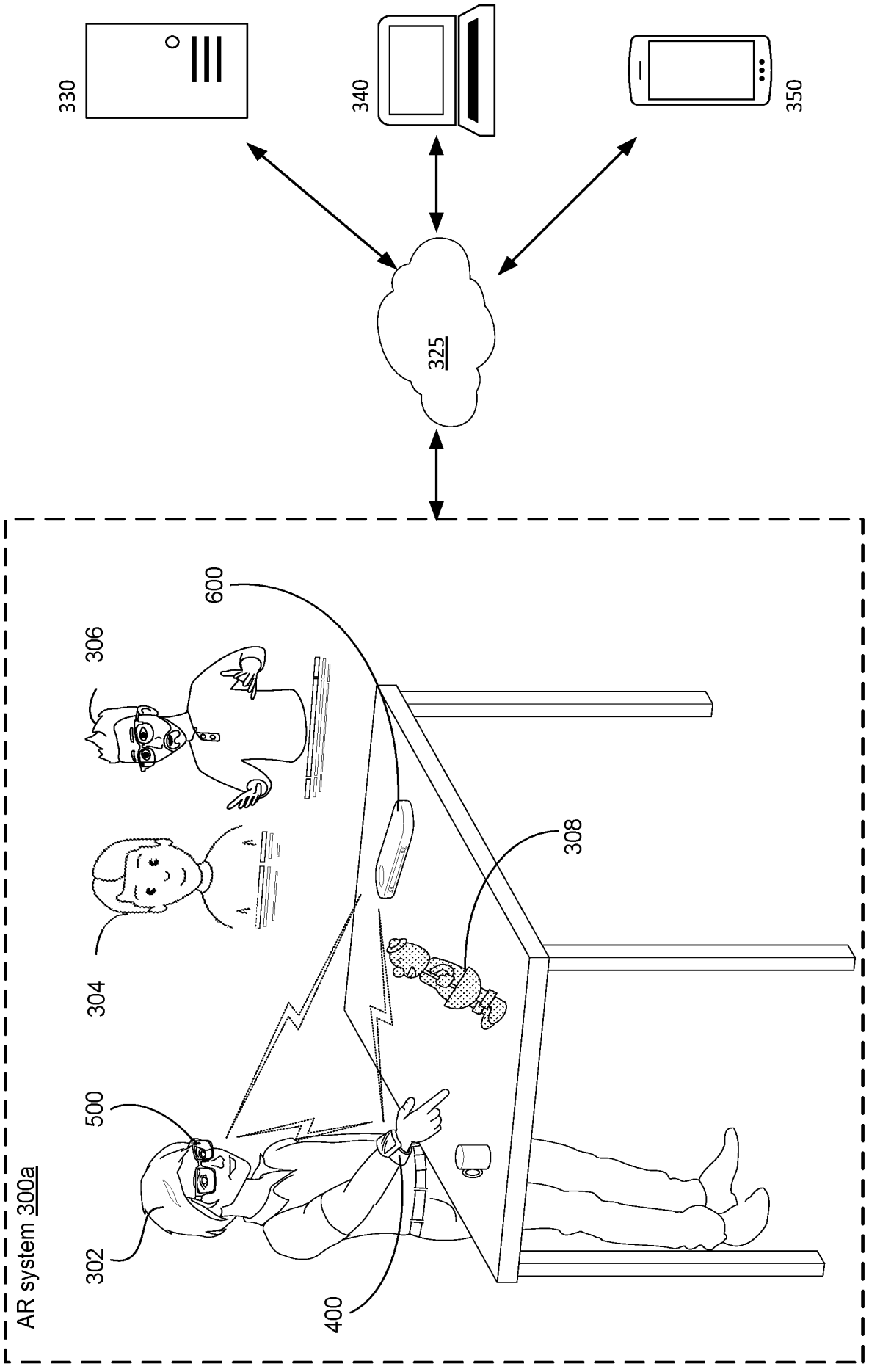


Figure 3A

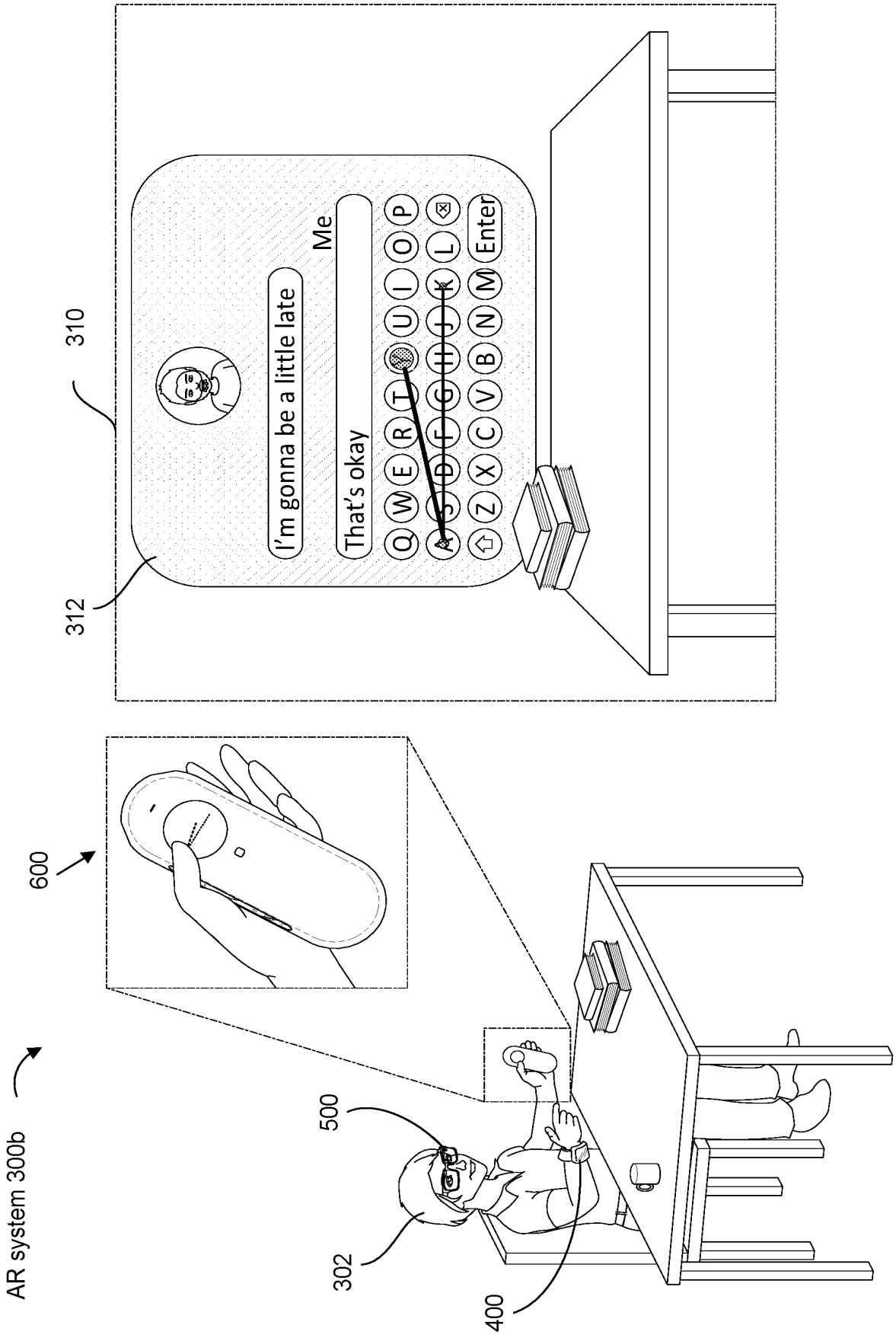

AR system 300b
600
310
312
I'm gonna be a little late
Me
That's okay
Enter
500
302
400

Figure 3B

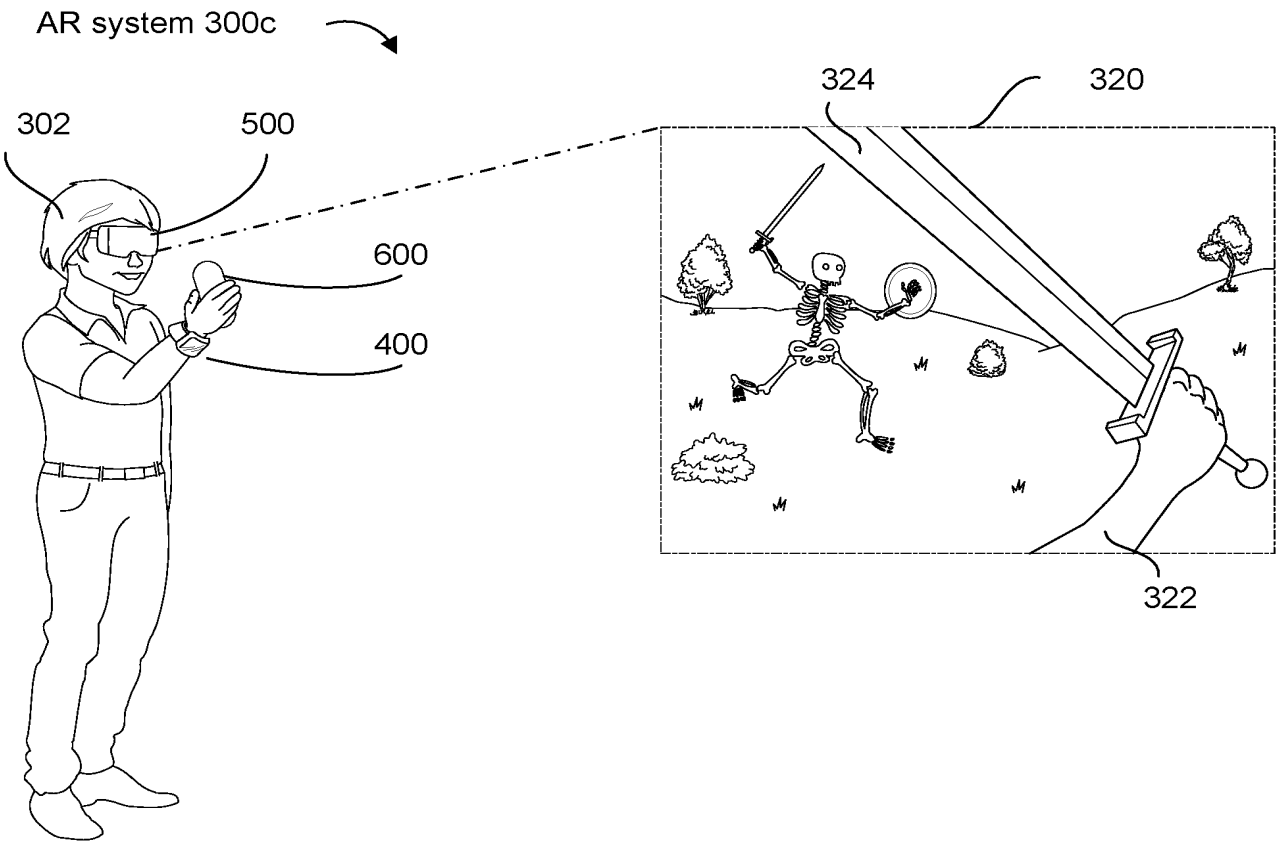


Figure 3C-1

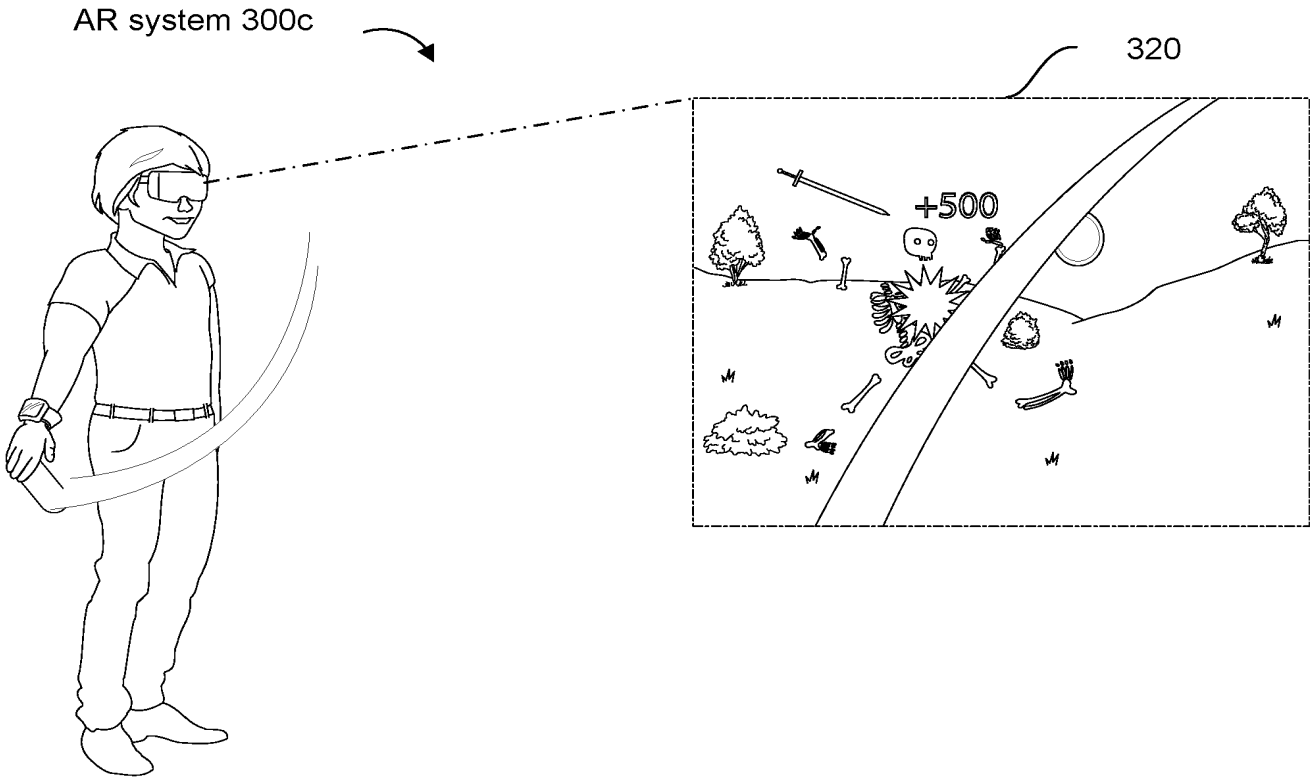


Figure 3C-2

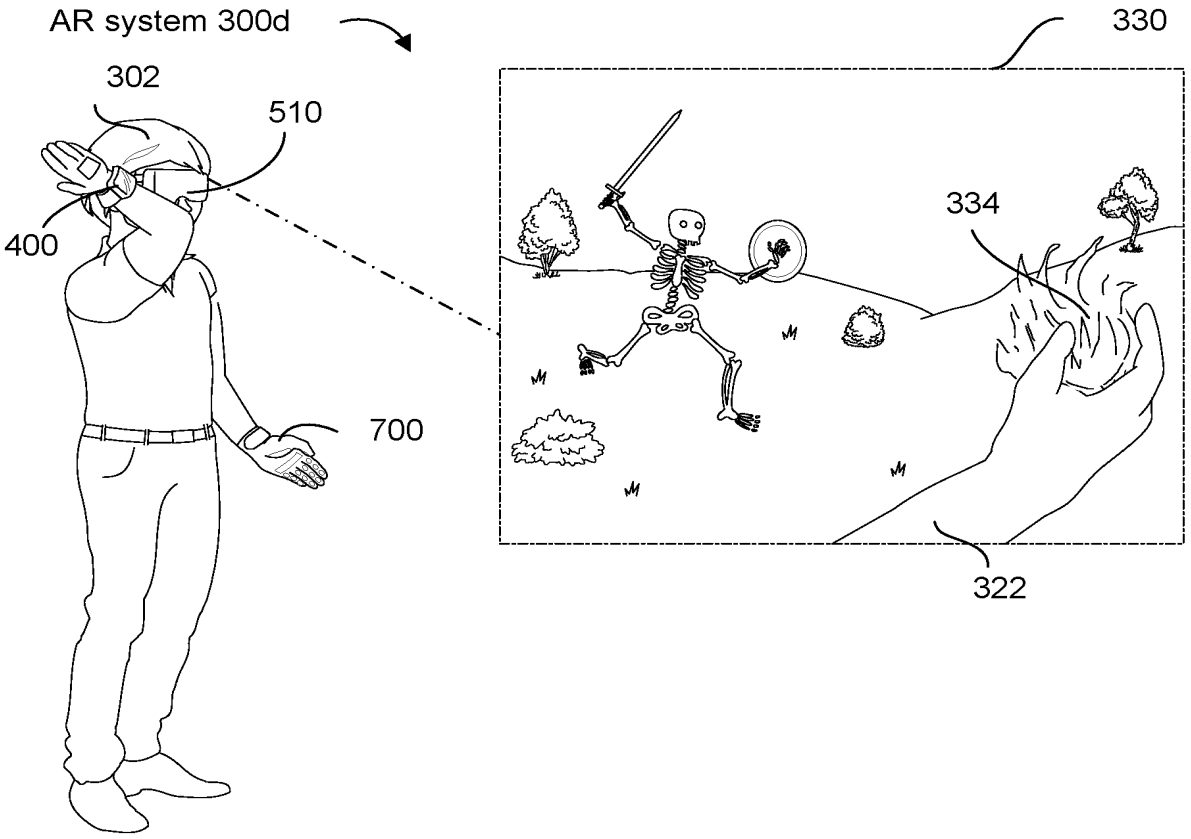


Figure 3D-1

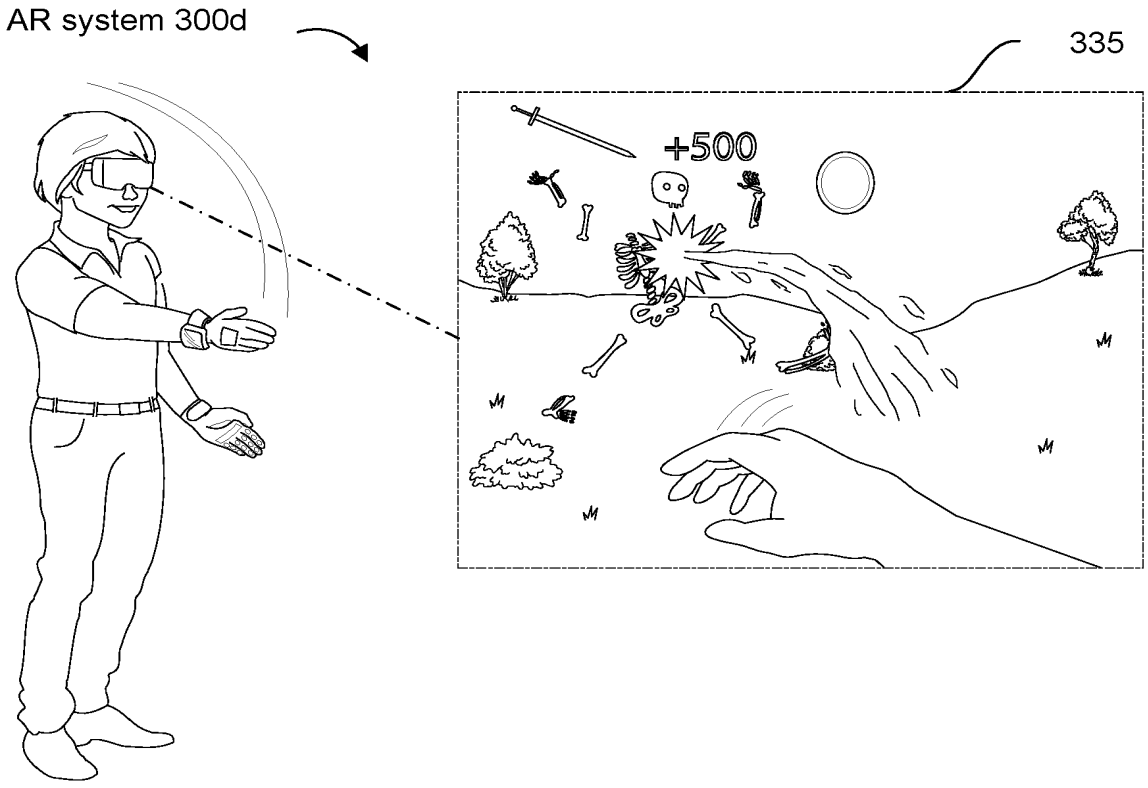


Figure 3D-2

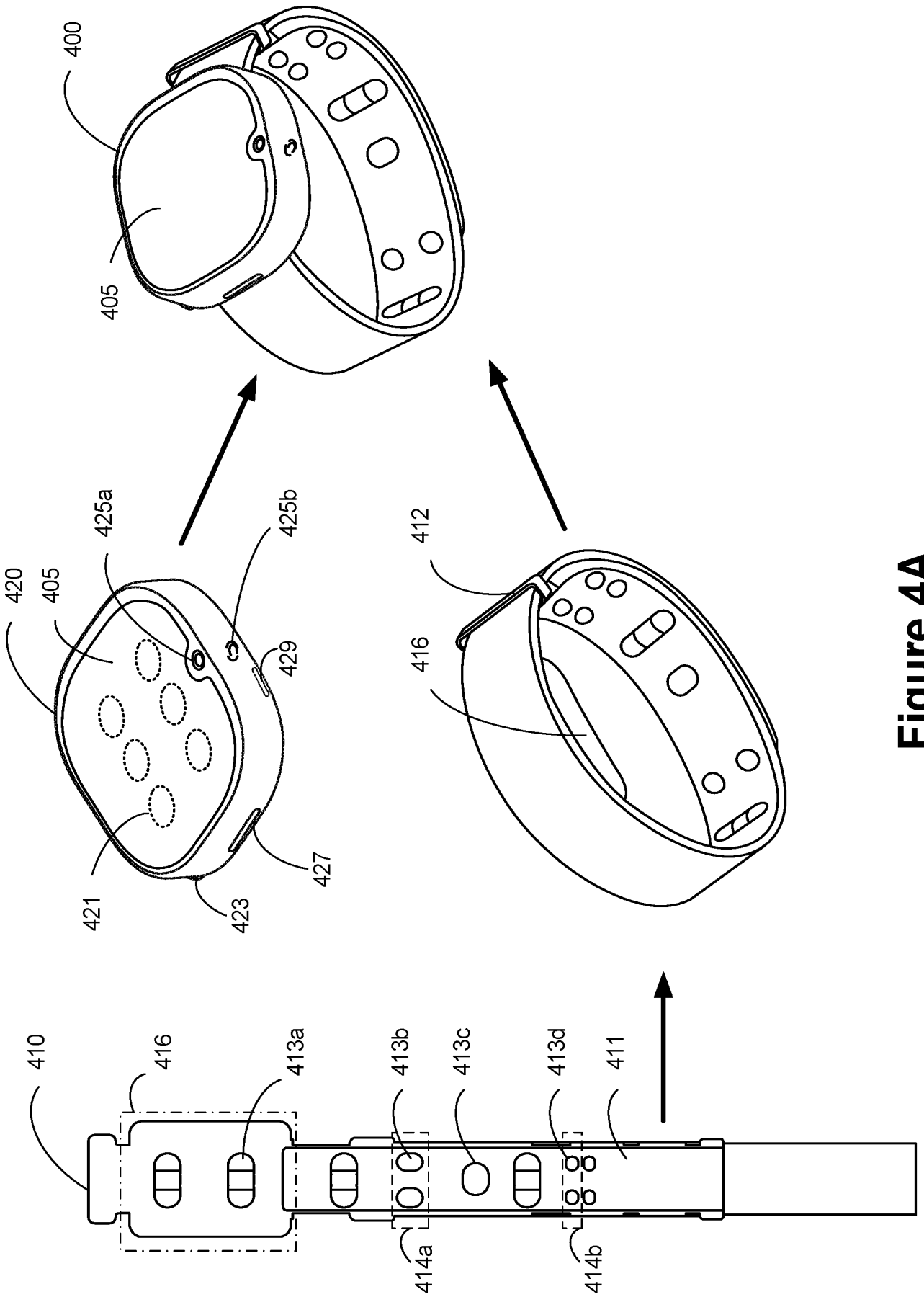

400
405
420
405
425a
425b
429
421
423
427
412
416
410
416
413a
413b
413c
413d
411
414a
414b

Figure 4A

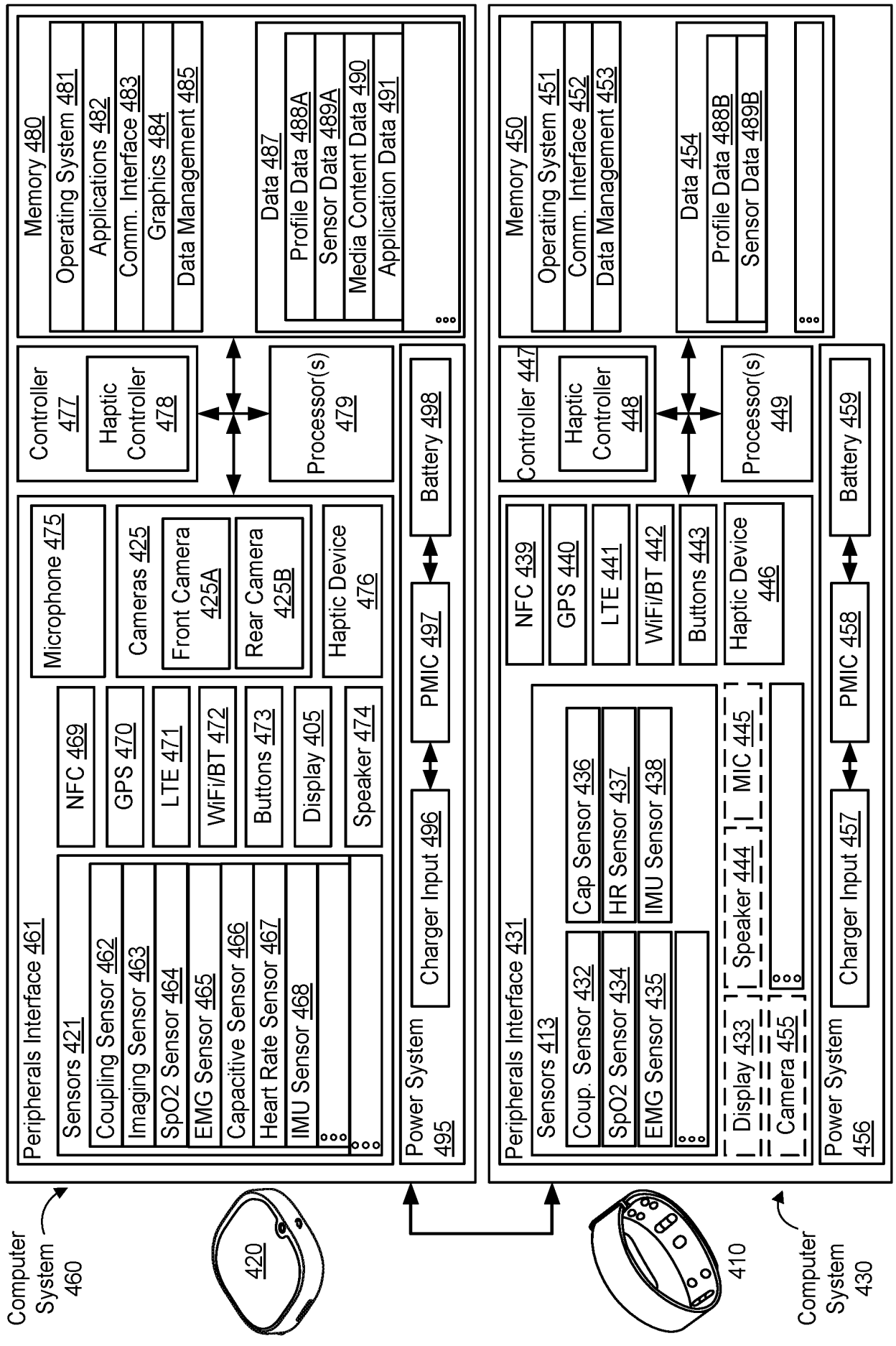

Computer System 460
Memory 480
Operating System 481
Applications 482
Comm. Interface 483
Graphics 484
Data Management 485
Data 487
Profile Data 488A
Sensor Data 489A
Media Content Data 490
Application Data 491
Controller 477
Haptic Controller 478
Processor(s) 479
Peripherals Interface 461
Microphone 475
Cameras 425
Front Camera 425A
Rear Camera 425B
Haptic Device 476
Sensors 421
Coupling Sensor 462
Imaging Sensor 463
SpO2 Sensor 464
EMG Sensor 465
Capacitive Sensor 466
Heart Rate Sensor 467
IMU Sensor 468
NFC 469
GPS 470
LTE 471
WiFi/BT 472
Buttons 473
Display 405
Speaker 474
Power System 495
Charger Input 496
PMIC 497
Battery 498
420
410
Computer System 430
Memory 450
Operating System 451
Comm. Interface 452
Data Management 453
Data 454
Profile Data 488B
Sensor Data 489B
Controller 447
Haptic Controller 448
Processor(s) 449
Peripherals Interface 431
NFC 439
GPS 440
LTE 441
WiFi/BT 442
Buttons 443
Haptic Device 446
Sensors 413
Cap Sensor 436
HR Sensor 437
IMU Sensor 438
Coup. Sensor 432
SpO2 Sensor 434
EMG Sensor 435
Display 433
Speaker 444
MIC 445
Camera 455
Power System 456
Charger Input 457
PMIC 458
Battery 459

Figure 4B

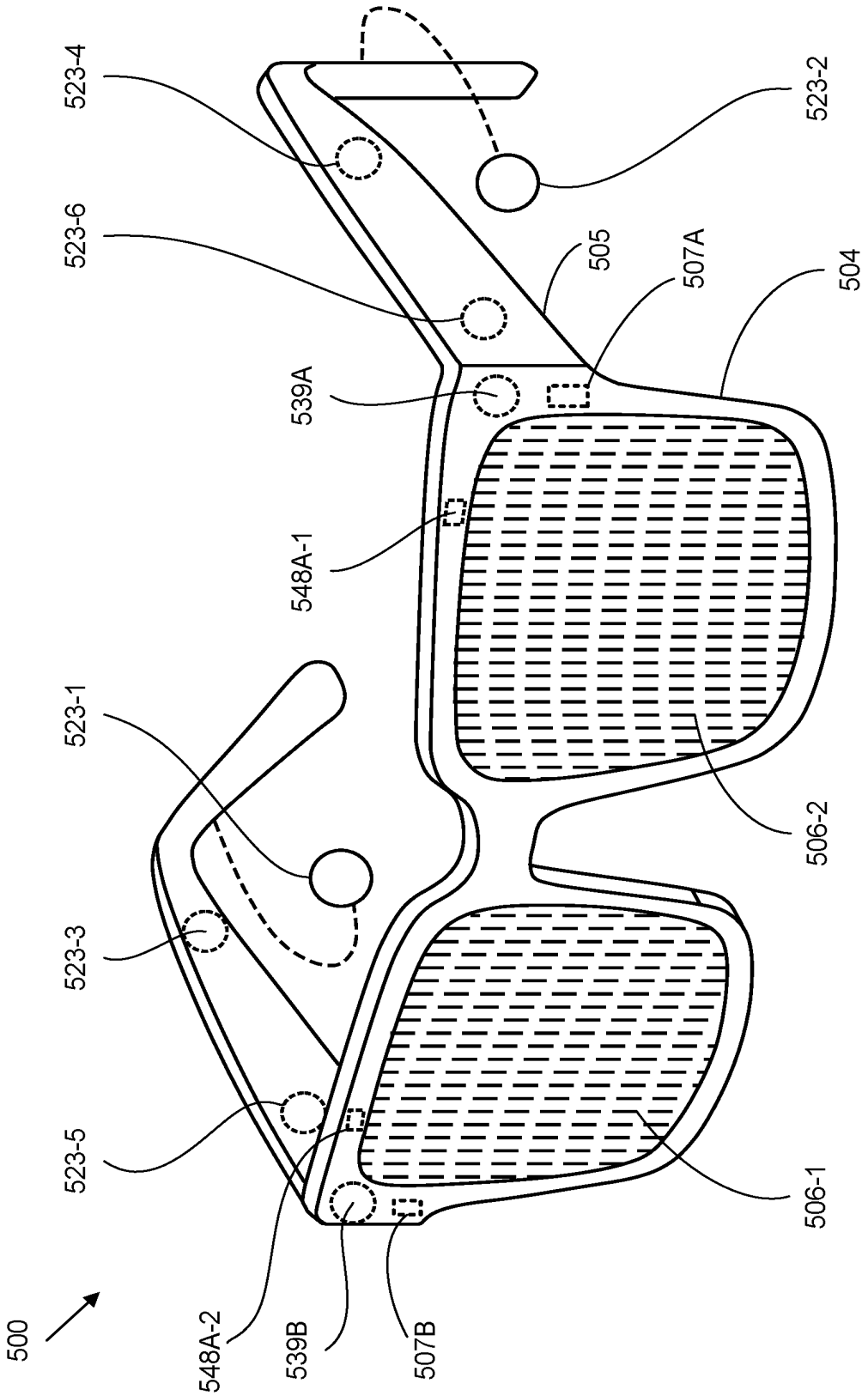

500
523-4
523-6
523-1
523-3
523-5
523-2
505
507A
504
539A
548A-1
506-2
506-1
548A-2
539B
507B

Figure 5A

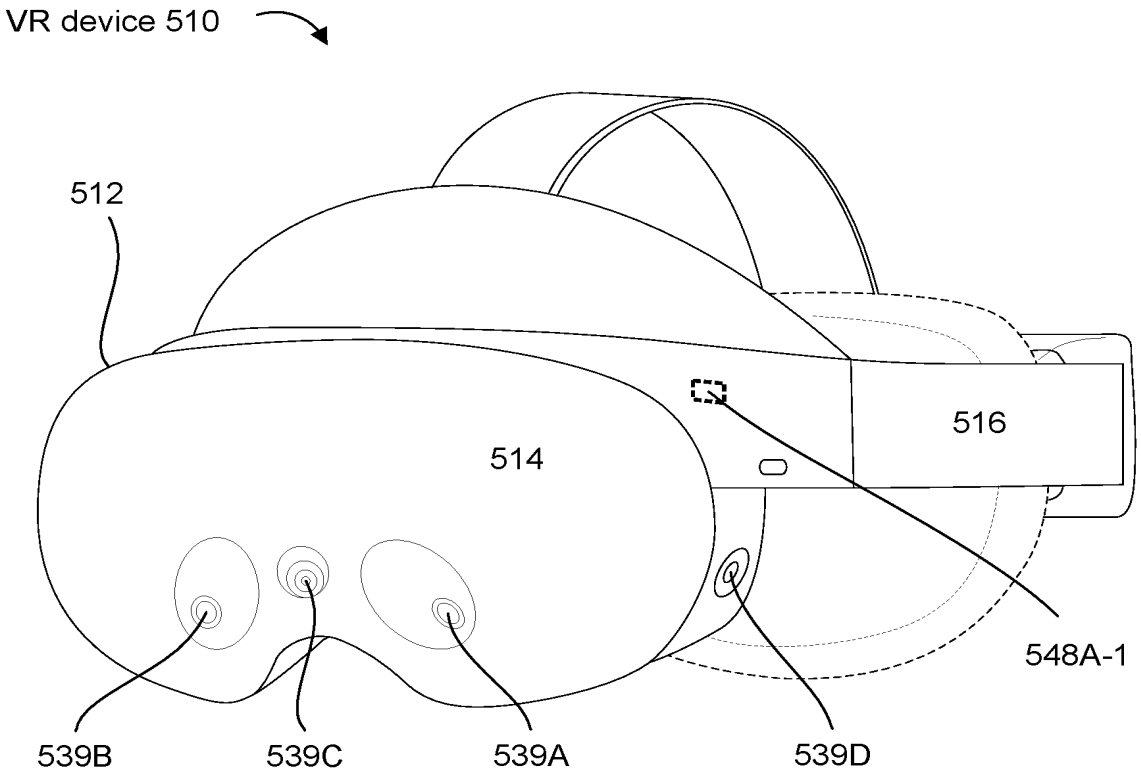


Figure 5B-1

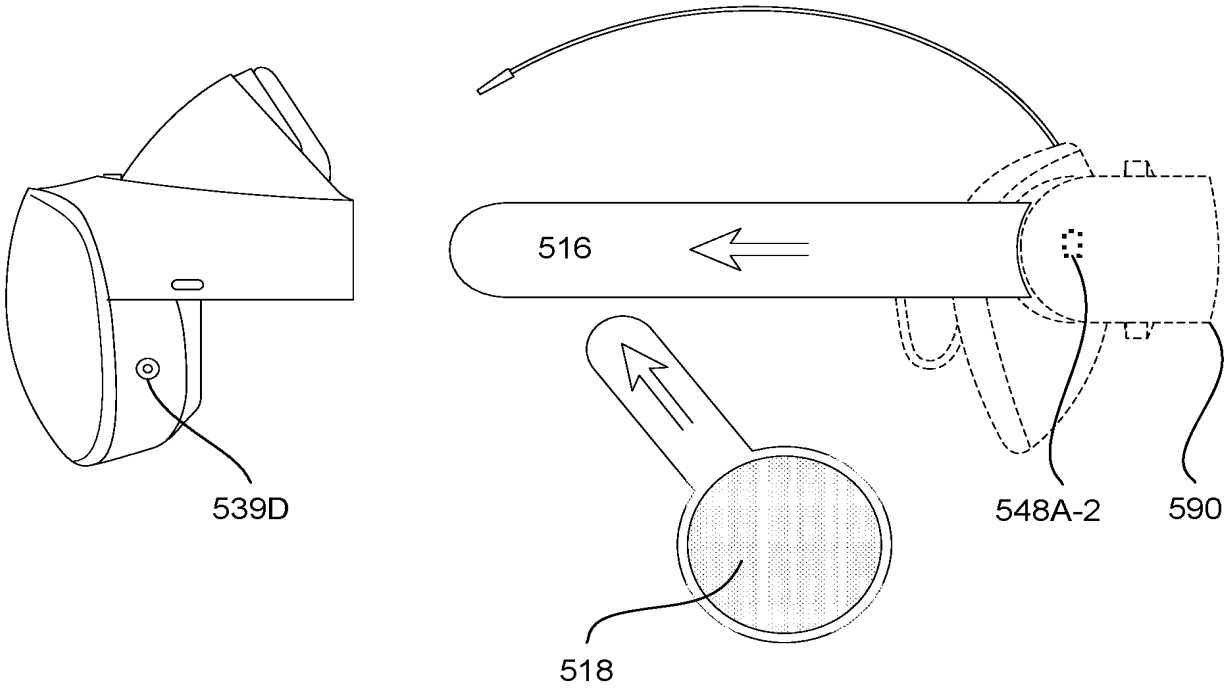


Figure 5B-2

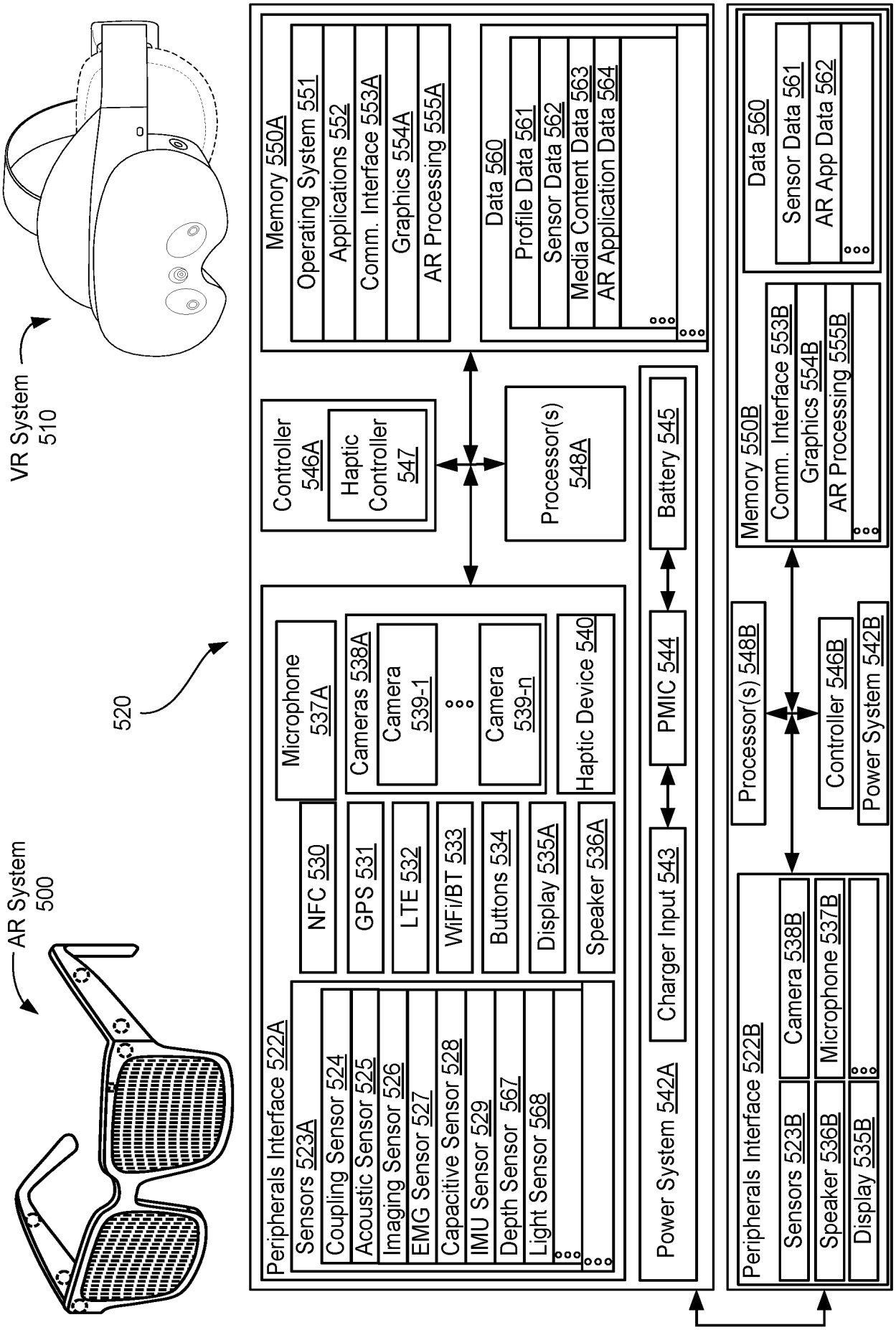
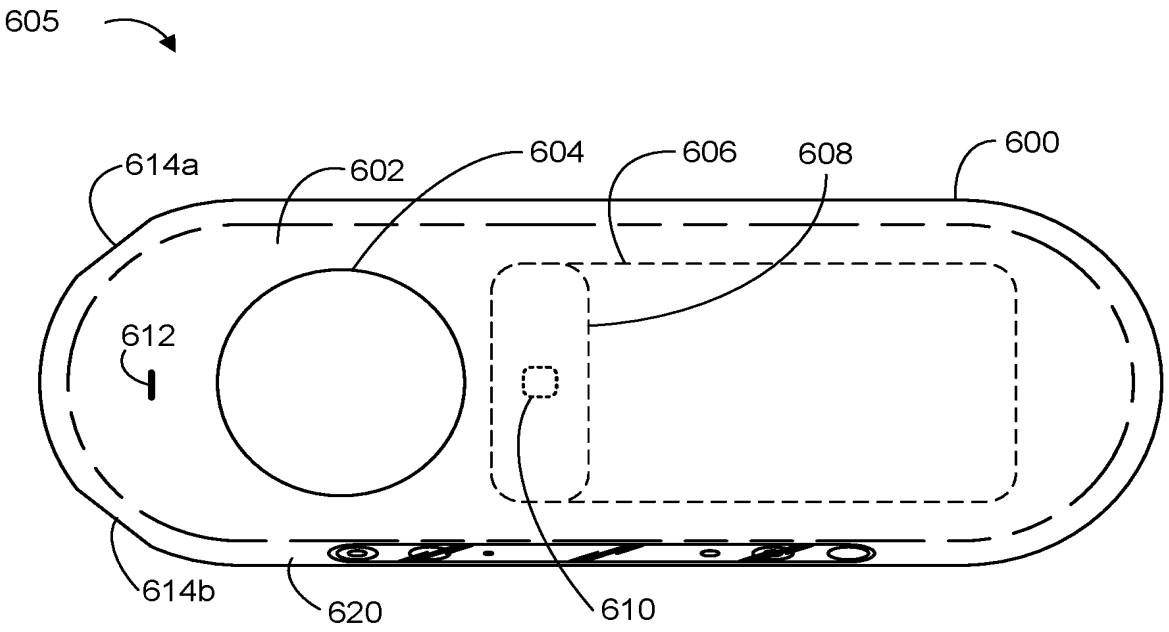

AR System
500
VR System
510
520
590
Peripherals Interface 522A
Sensors 523A
Coupling Sensor 524
Acoustic Sensor 525
Imaging Sensor 526
EMG Sensor 527
Capacitive Sensor 528
IMU Sensor 529
Depth Sensor 567
Light Sensor 568
NFC 530
GPS 531
LTE 532
WiFi/BT 533
Buttons 534
Display 535A
Speaker 536A
Microphone 537A
Cameras 538A
Camera 539-1
Camera 539-n
Haptic Device 540
Power System 542A
Charger Input 543
PMIC 544
Battery 545
Controller 546A
Haptic Controller 547
Processor(s) 548A
Memory 550A
Operating System 551
Applications 552
Comm. Interface 553A
Graphics 554A
AR Processing 555A
Data 560
Profile Data 561
Sensor Data 562
Media Content Data 563
AR Application Data 564
Peripherals Interface 522B
Sensors 523B
Camera 538B
Speaker 536B
Microphone 537B
Display 535B
Processor(s) 548B
Controller 546B
Power System 542B
Memory 550B
Comm. Interface 553B
Graphics 554B
AR Processing 555B
Data 560
Sensor Data 561
AR App Data 562

Figure 5C


605
614a
602
604
606
608
600
612
614b
620
610

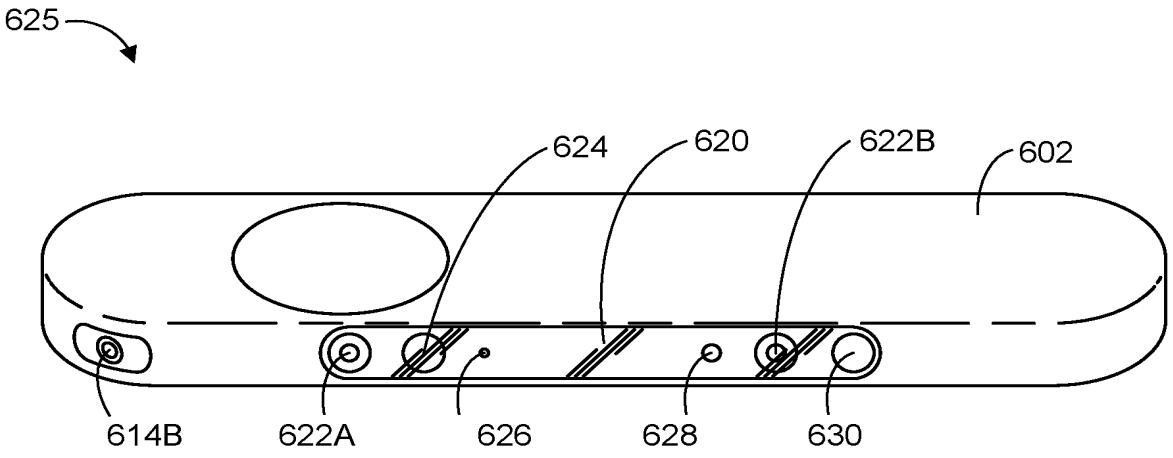

625
624
620
622B
602
614B
622A
626
628
630

Figure 6A

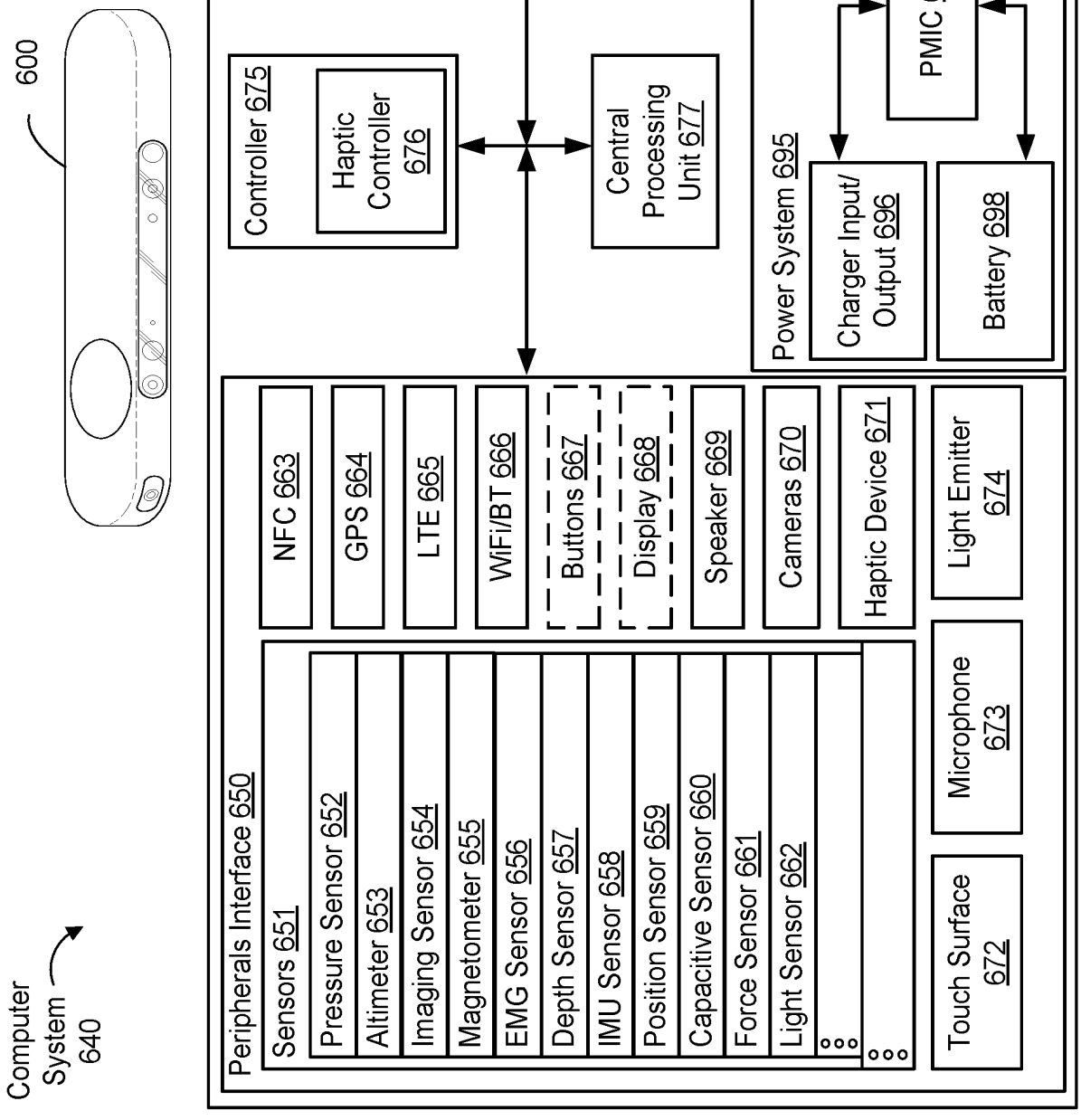

Computer System 640
600
Peripherals Interface 650
Sensors 651
Pressure Sensor 652
Altimeter 653
Imaging Sensor 654
Magnetometer 655
EMG Sensor 656
Depth Sensor 657
IMU Sensor 658
Position Sensor 659
Capacitive Sensor 660
Force Sensor 661
Light Sensor 662
...
NFC 663
GPS 664
LTE 665
WiFi/BT 666
Buttons 667
Display 668
Speaker 669
Cameras 670
Haptic Device 671
Light Emitter 674
Touch Surface 672
Microphone 673
Controller 675
Haptic Controller 676
Central Processing Unit 677
Memory 678
Operating System 679
Applications 680
Comm. Interface 681
Graphics Module 682
Task & Processing Mgmt 683
Interoperability Module 684
AR Processing 685
Data Mgmt Module 686
Data 688
Profile Data 689
Device Data 690
Sensor Data 691
Media Content Data 692
Application Data 693
Power System 695
Charger Input/ Output 696
PMIC 697
Battery 698

Figure 6B

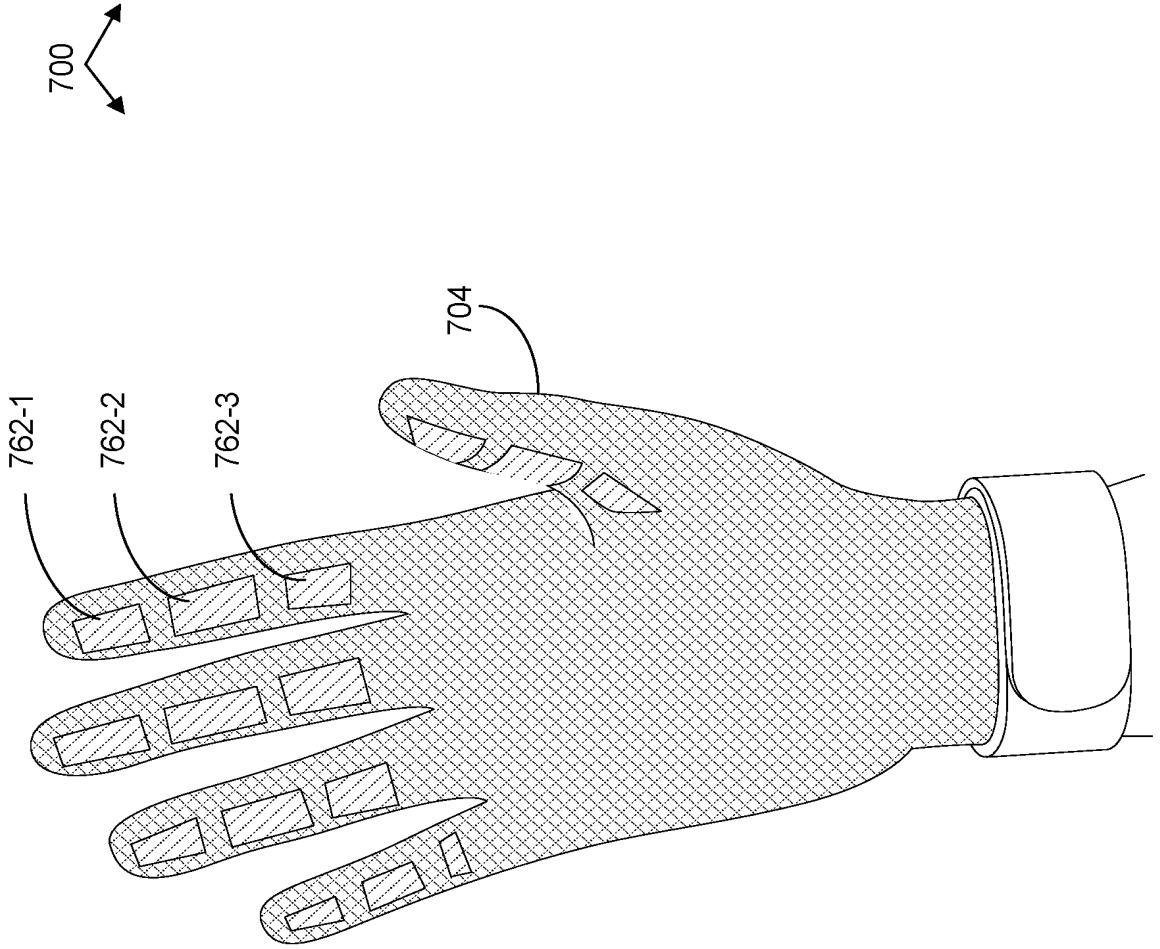


Figure 7A

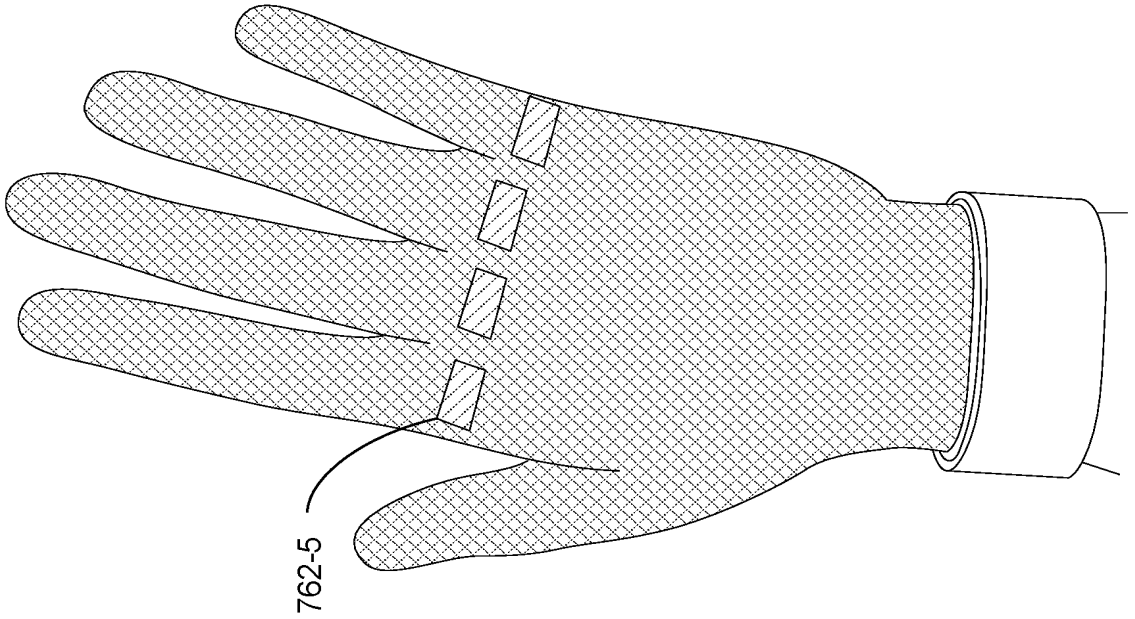


Figure 7B

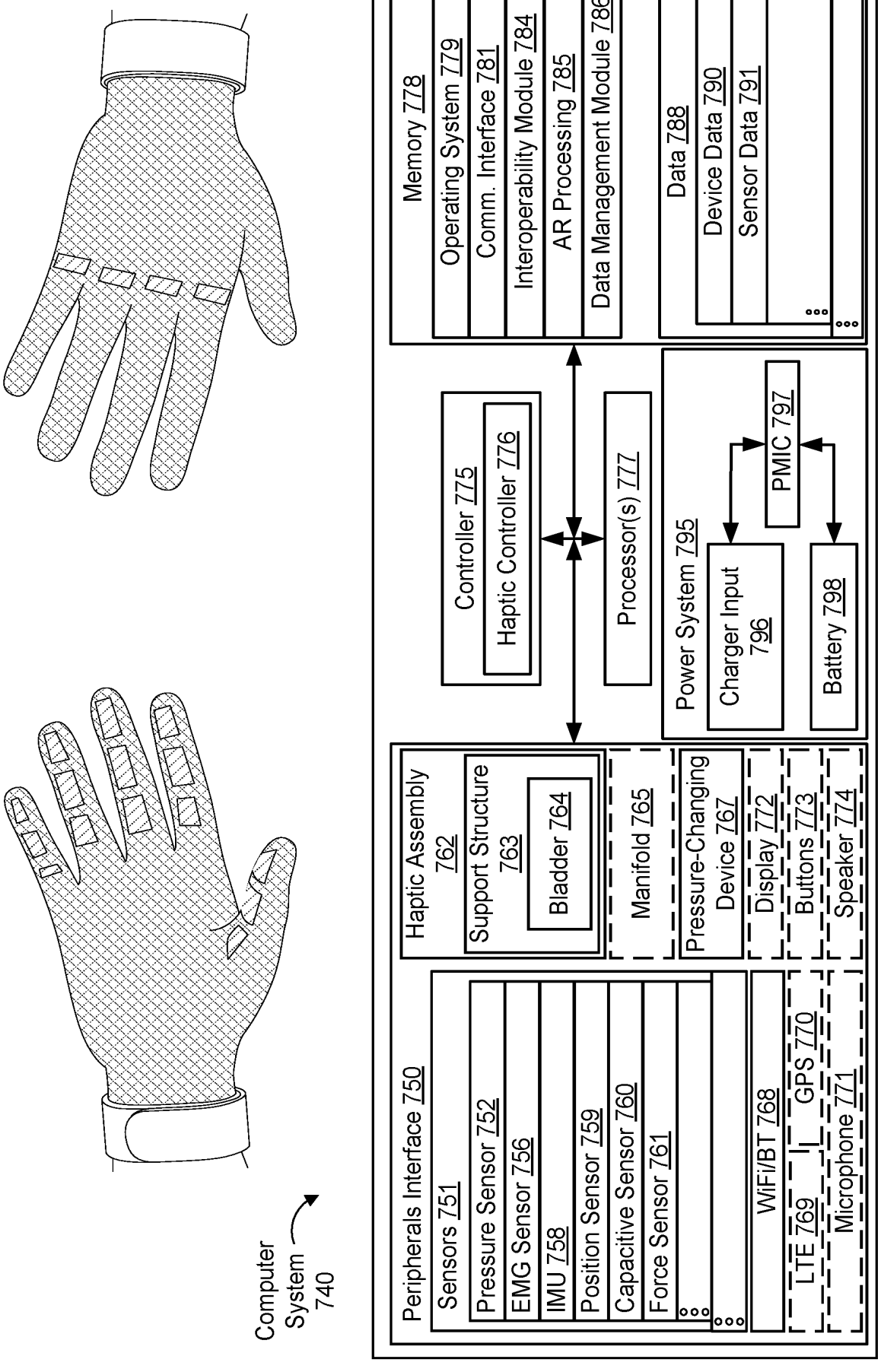

Computer System 740
Peripherals Interface 750
Sensors 751
Pressure Sensor 752
EMG Sensor 756
IMU 758
Position Sensor 759
Capacitive Sensor 760
Force Sensor 761
...
WiFi/BT 768
LTE 769
GPS 770
Microphone 771
Haptic Assembly 762
Support Structure 763
Bladder 764
Manifold 765
Pressure-Changing Device 767
Display 772
Buttons 773
Speaker 774
Controller 775
Haptic Controller 776
Processor(s) 777
Power System 795
Charger Input 796
PMIC 797
Battery 798
Memory 778
Operating System 779
Comm. Interface 781
Interoperability Module 784
AR Processing 785
Data Management Module 786
Data 788
Device Data 790
Sensor Data 791

Figure 7C