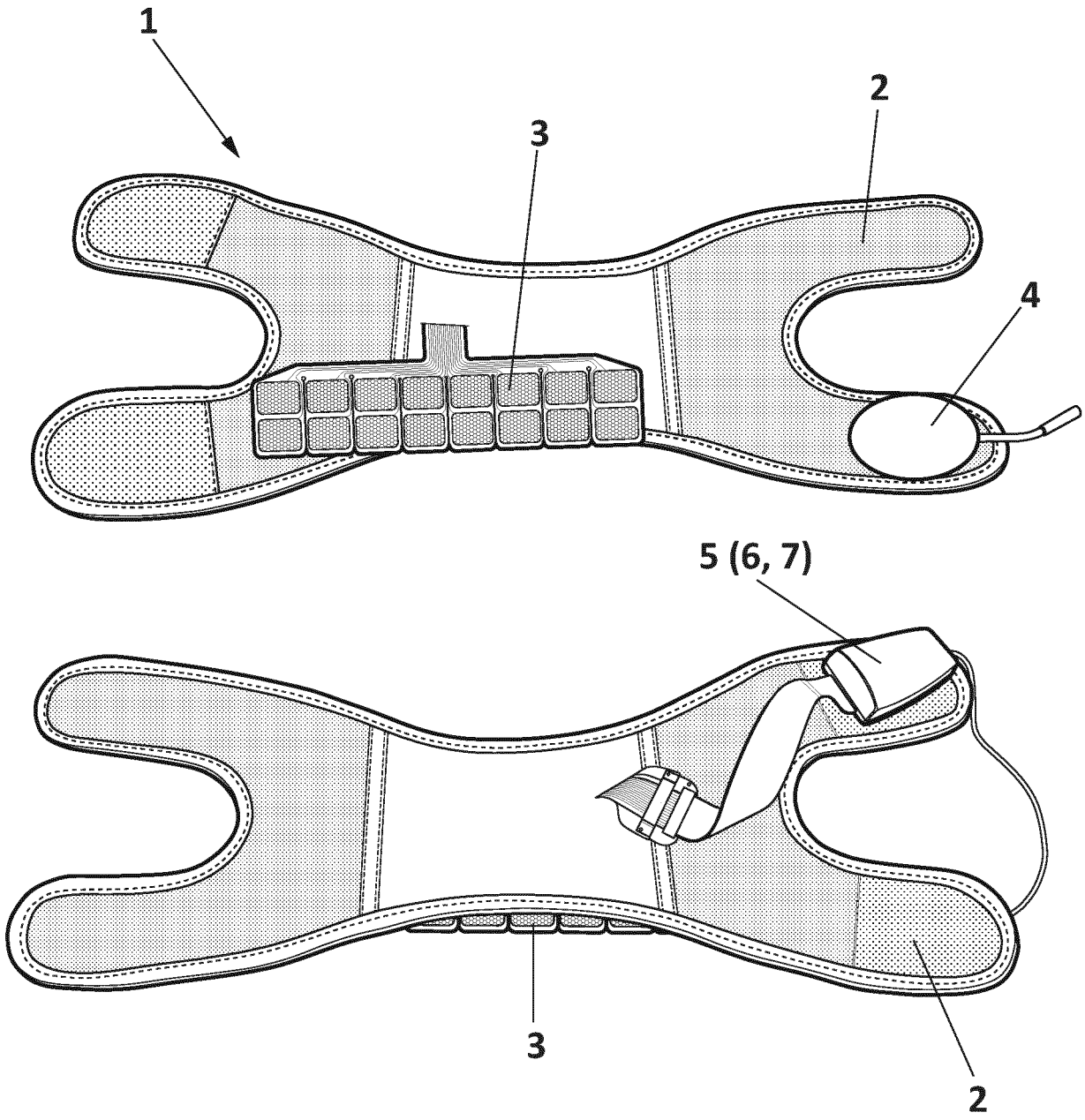


FIG. 1

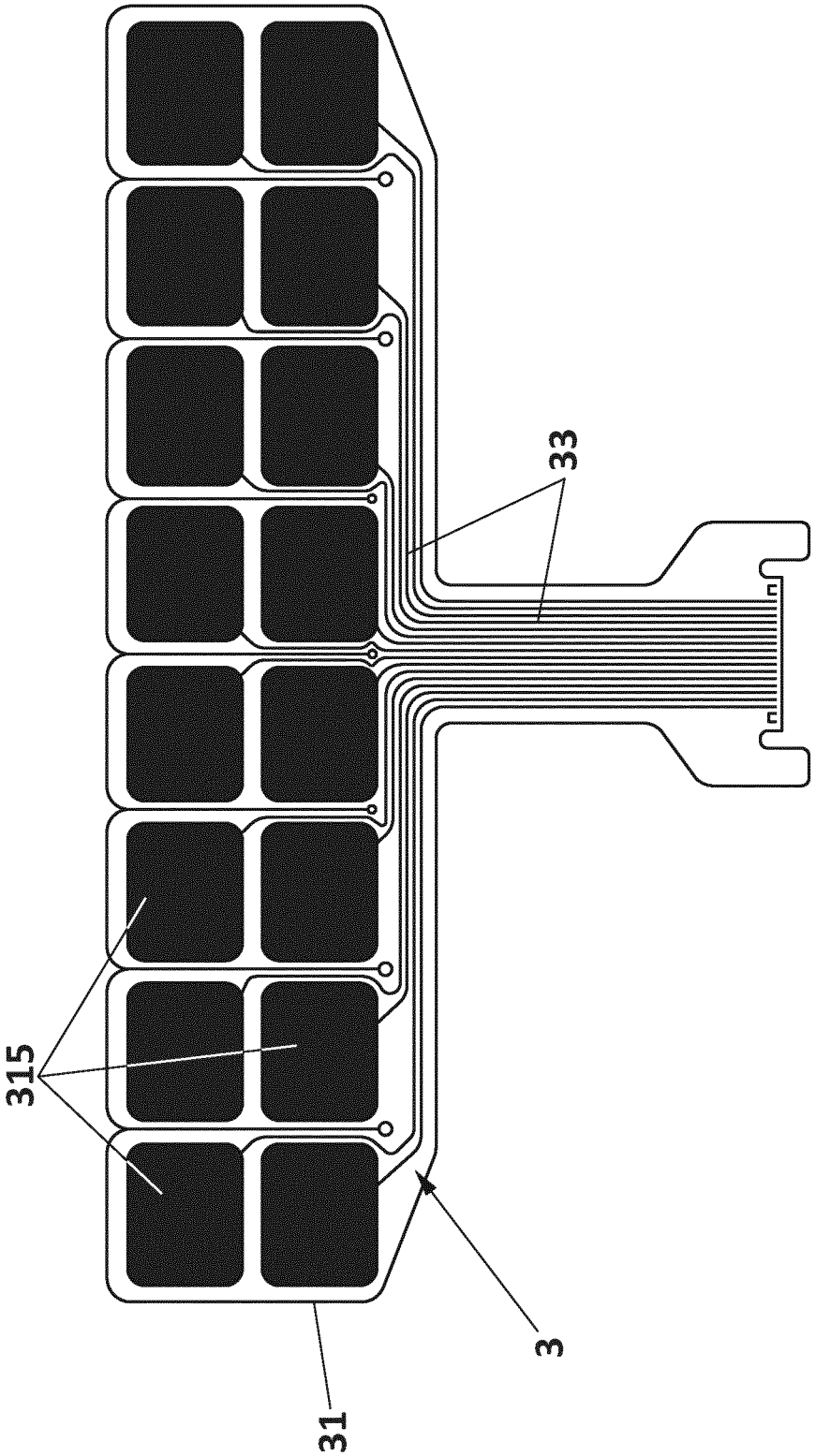


FIG. 2

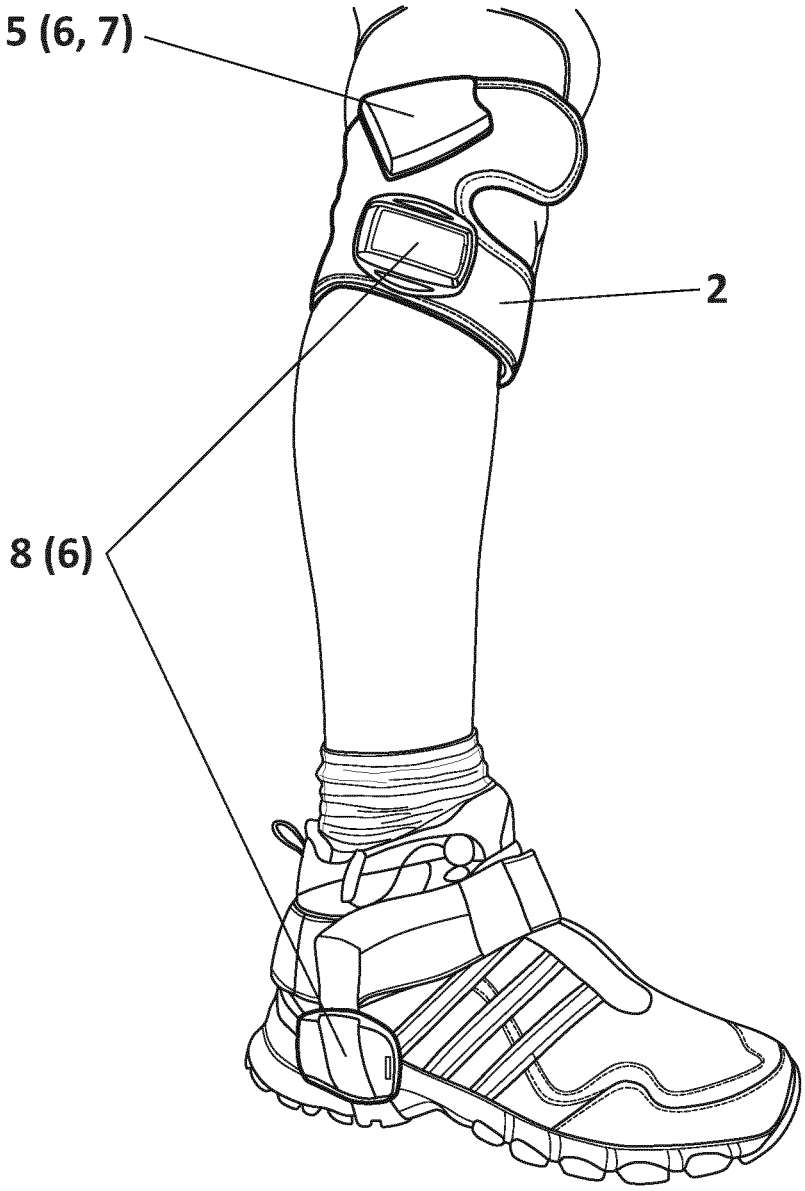


FIG. 3

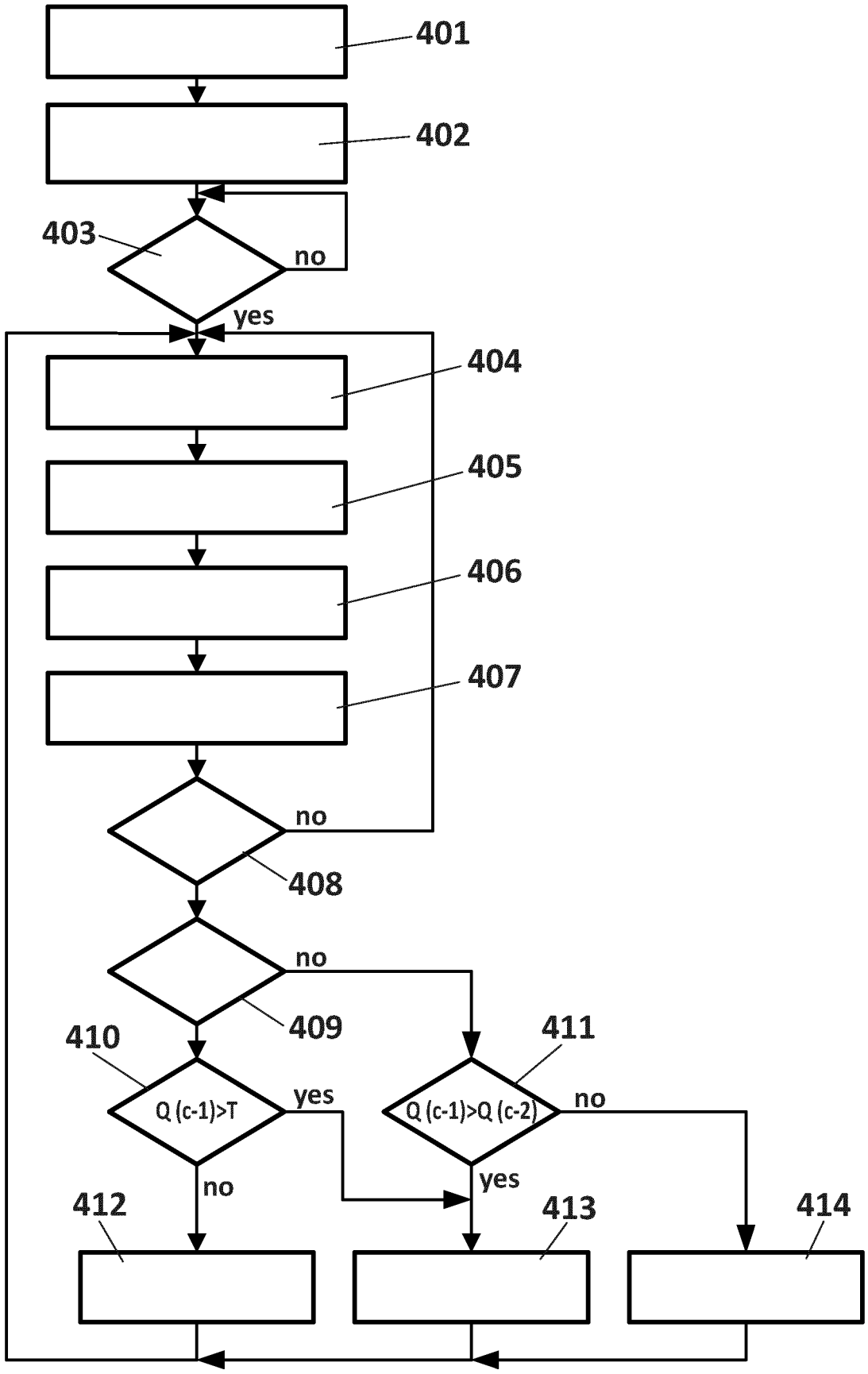

401
402
403
no
yes
404
405
406
407
no
408
no
409
410
Q (c-1)>T
yes
no
411
Q (c-1)>Q (c-2)
no
yes
412
413
414

FIG. 4

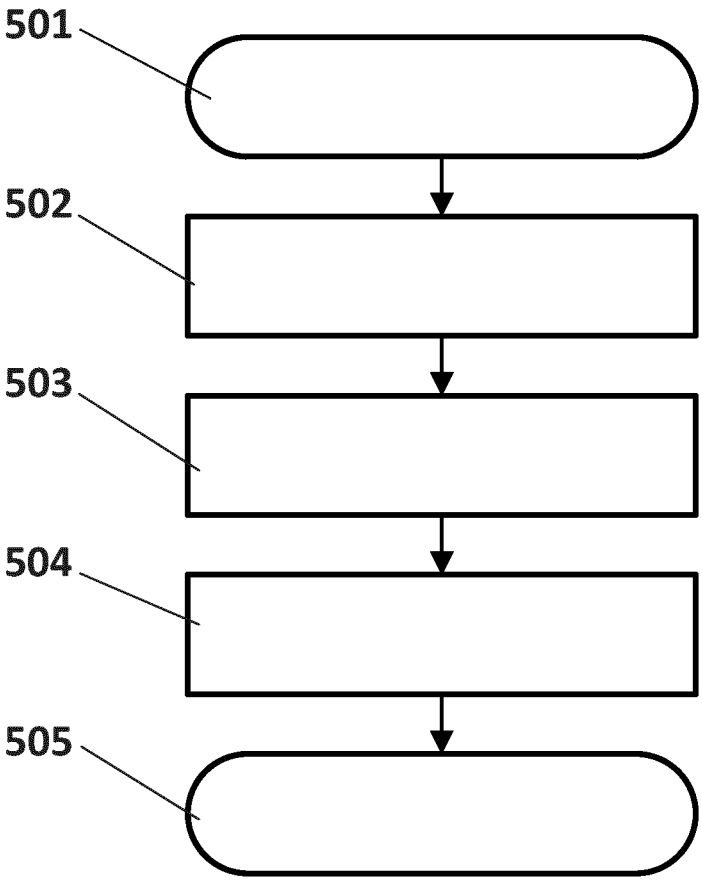


FIG. 5

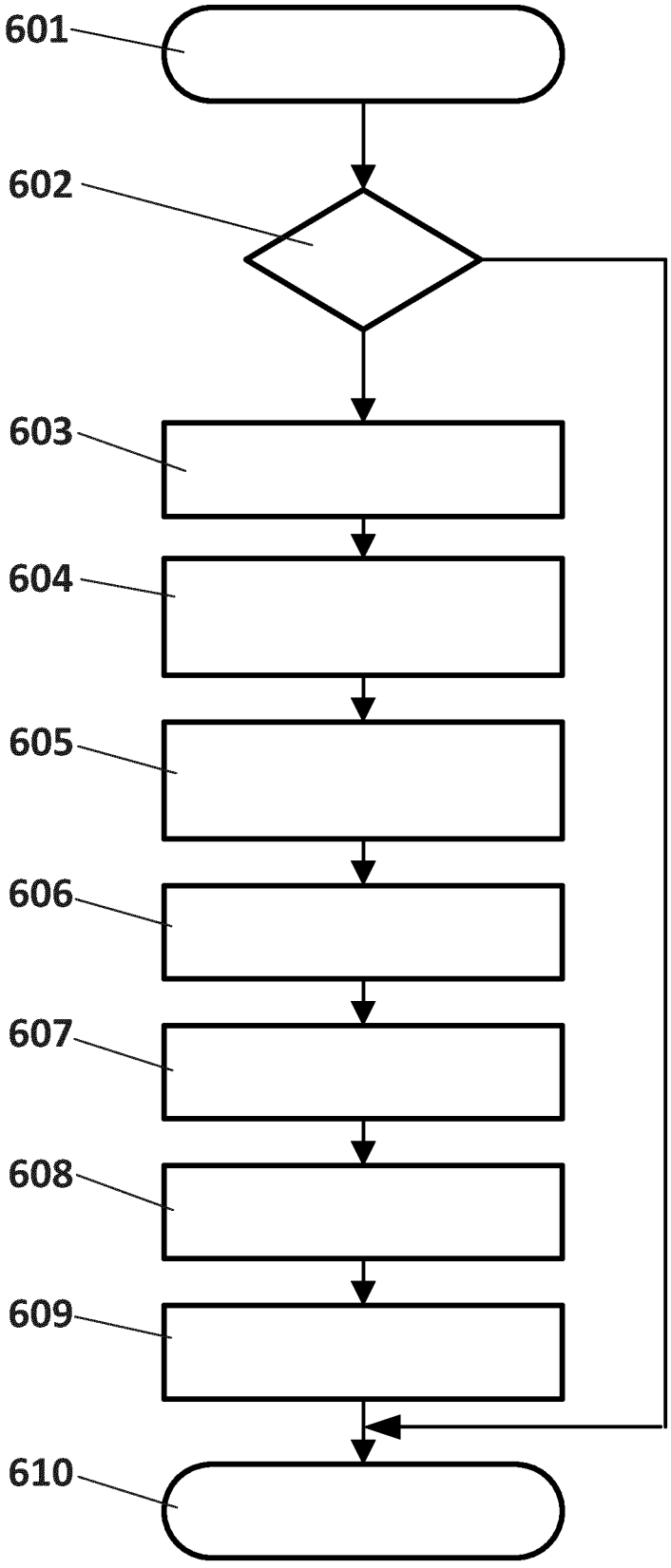


FIG. 6

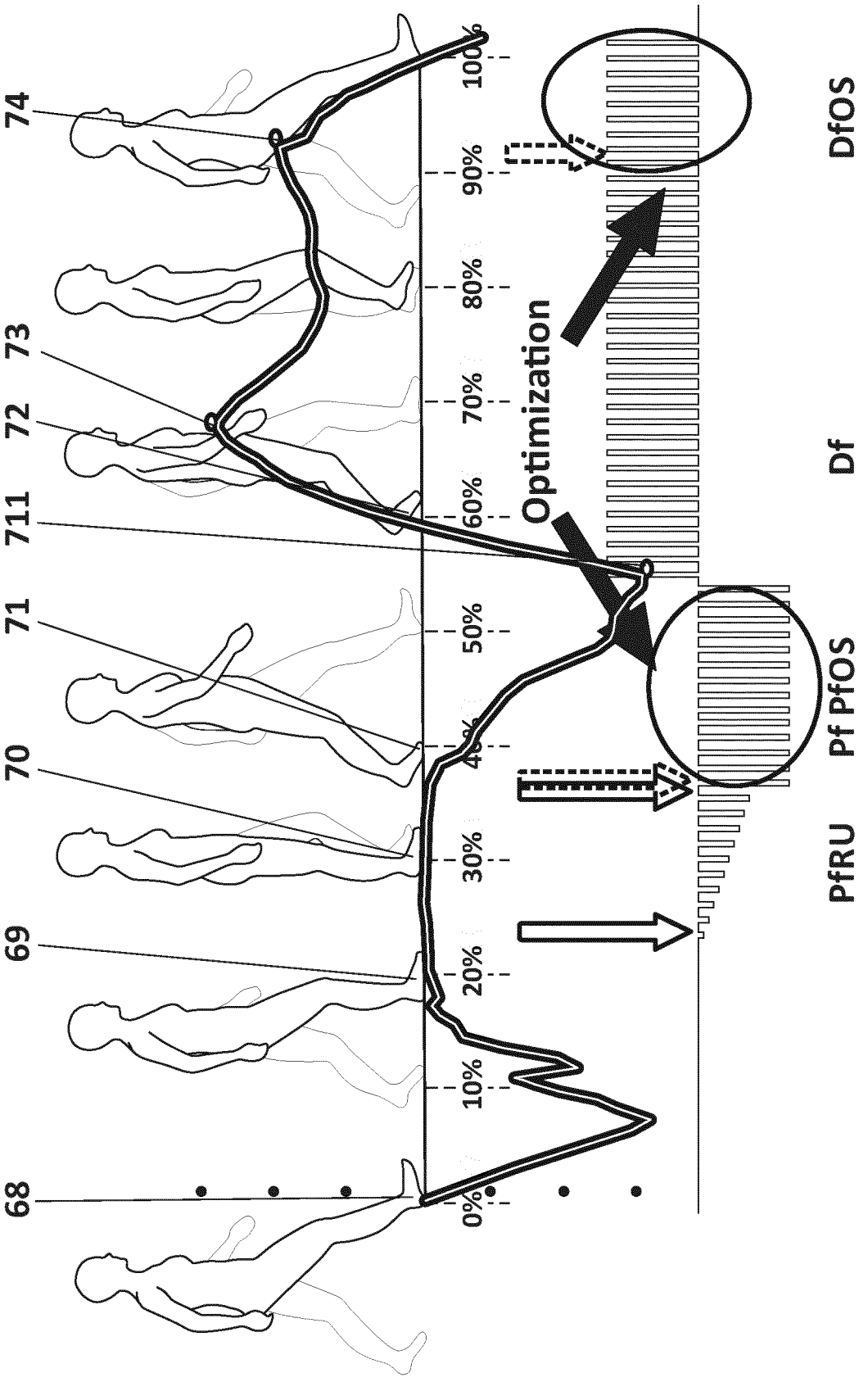

74
73
72
711
71
70
69
68
100%
90%
80%
70%
60%
50%
40%
30%
20%
10%
0%
Optimization
DfOS
Df
Pf PfOS
PfRU

FIG. 7

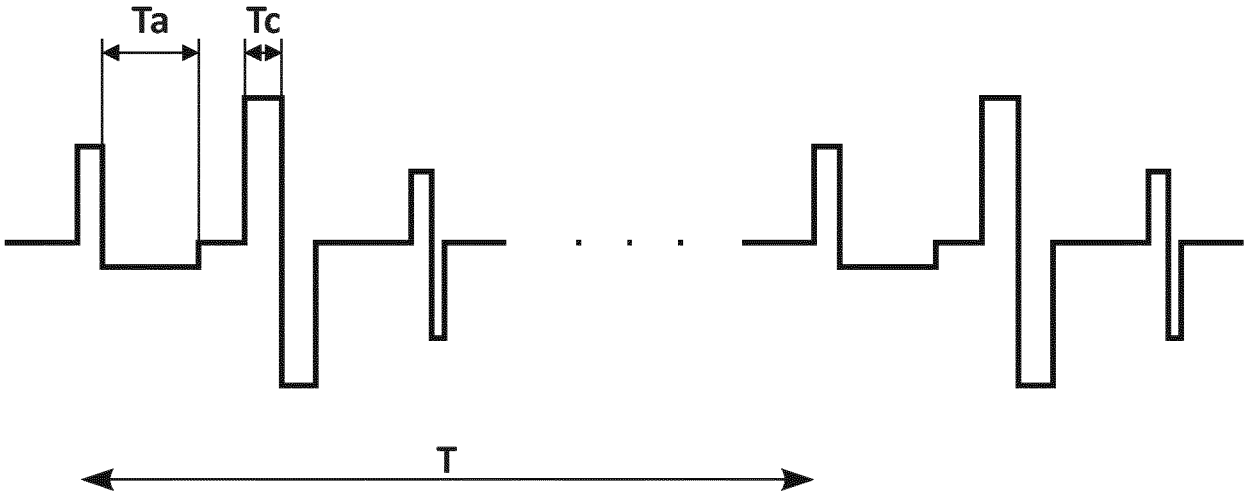


FIG. 8

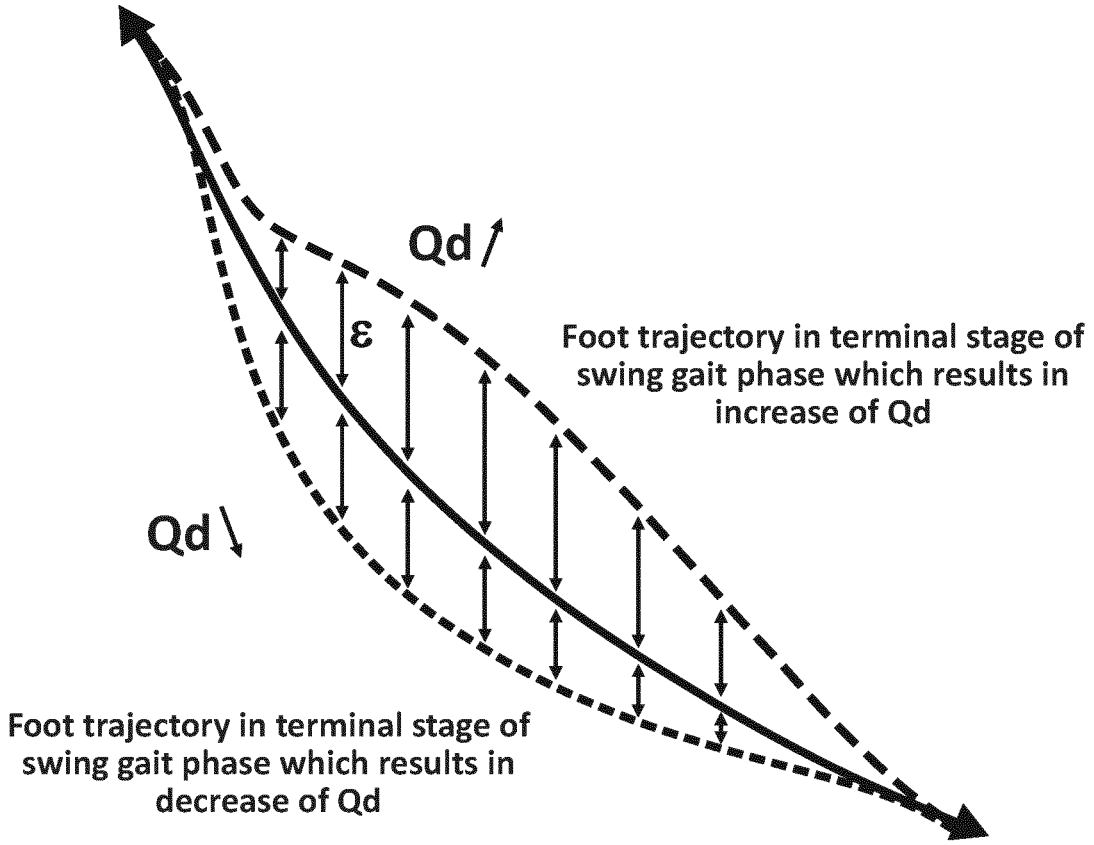

Qd
ε
Foot trajectory in terminal stage of swing gait phase which results in increase of Qd
Qd
Foot trajectory in terminal stage of swing gait phase which results in decrease of Qd

FIG. 9

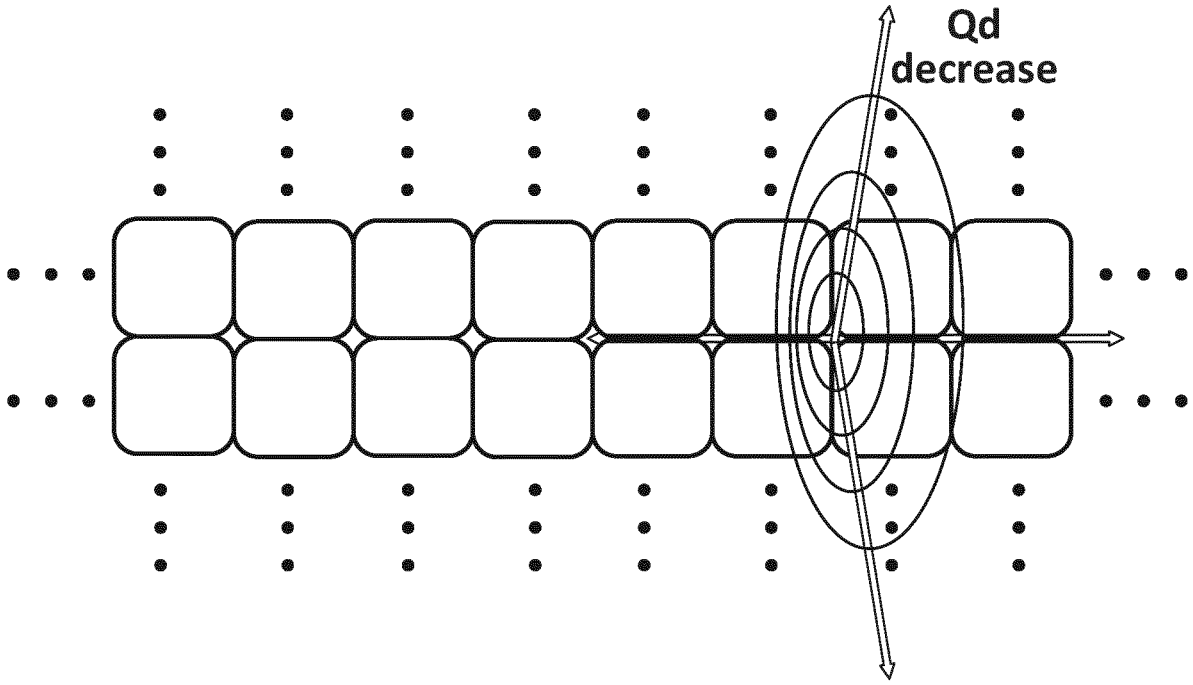

Qd
decrease

FIG. 10

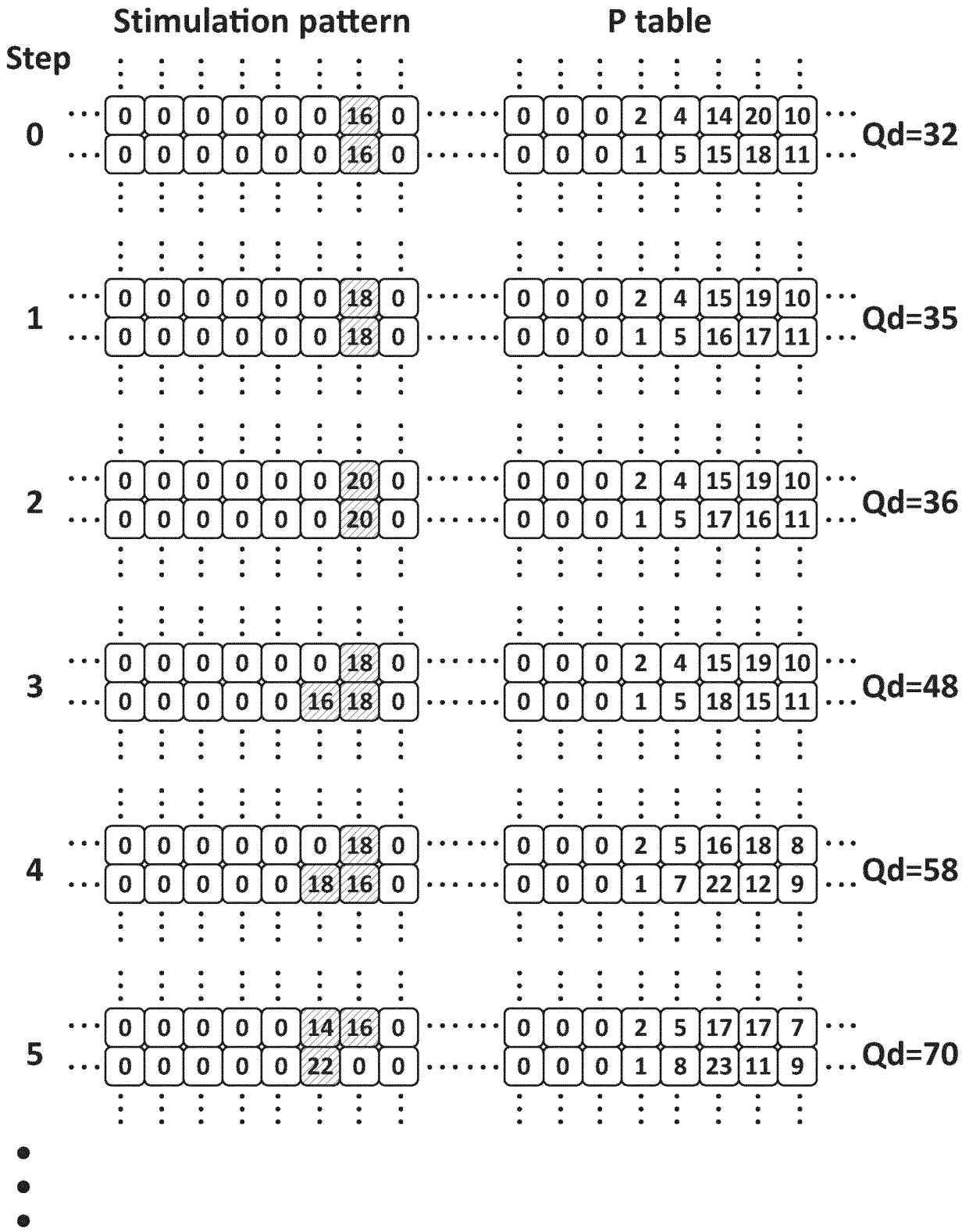

Stimulation pattern
P table
Step
0
0 0 0 0 0 0 16 0
0 0 0 0 0 0 16 0
0 0 0 2 4 14 20 10
0 0 0 1 5 15 18 11
Qd=32
1
0 0 0 0 0 0 18 0
0 0 0 0 0 0 18 0
0 0 0 2 4 15 19 10
0 0 0 1 5 16 17 11
Qd=35
2
0 0 0 0 0 0 20 0
0 0 0 0 0 0 20 0
0 0 0 2 4 15 19 10
0 0 0 1 5 17 16 11
Qd=36
3
0 0 0 0 0 0 18 0
0 0 0 0 0 16 18 0
0 0 0 2 4 15 19 10
0 0 0 1 5 18 15 11
Qd=48
4
0 0 0 0 0 0 18 0
0 0 0 0 0 18 16 0
0 0 0 2 5 16 18 8
0 0 0 1 7 22 12 9
Qd=58
5
0 0 0 0 0 14 16 0
0 0 0 0 0 22 0 0
0 0 0 2 5 17 17 7
0 0 0 1 8 23 11 9
Qd=70

FIG. 11