산타의 선물공장

key	box address
10	0
12	1
20	2
15	3
14	4
19	5
22	6
25	7
16	8
17	8
21	10
18	11

address	idx	weight	belt	prev	next
0	10	30	0	0 head	1
1	12	30	0	0	2
2	20	20	0	1	3
3	15	20	0	2	0 tail
4	14	10	1	1 head	5
5	19	18	1	4	6
6	22	17	1	5	7
7	25	15	1	6	1 tail
8	16	25	2	2 head	9
9	17	11	2	8	10
10	21	14	2	9	11
11	18	17	2	10	2 tail

address is_broken head tail 0 FALSE 0 3 1 FALSE 4 7 2 FALSE 8 11

BELT

box_map

BOX

build_factory

weight {10: 30, 12: 30, 20: 20, 15: 20, 14: 10, 19: 18, 22: 17, 25: 15, 16: 25, 17: 11, 21: 14, 18: 17}

prv {12: 10, 20: 12, 15: 20, 19: 14, 22: 19, 25: 22, 17: 16, 21: 17, 18: 21})

nxt {10: 12, 12: 20, 20: 15, 14: 19, 19: 22, 22: 25, 16: 17, 17: 21, 21: 18})

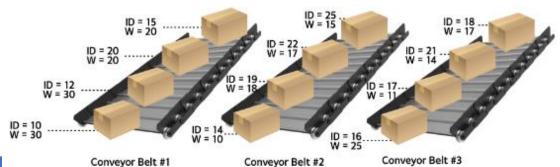
head [10, 14, 16, 0, 0, 0, 0, 0, 0, 0]

tail [15, 25, 18, 0, 0, 0, 0, 0, 0, 0]

broken [False, False, F

belt_num {10: 0, 12: 0, 20: 0, 15: 0, 14: 1, 19: 1, 22: 1, 25: 1, 16: 2, 17: 2, 21: 2, 18: 2})

w	prv	nxt	bel	t_num	
30		12	0		
30	10	20	0		
20	12	15	0		
20	20		0		
10		19	1		
18	14	22	1		
17	19	25	1		
15	22		1		
25		17	2	idx	0
11	16	21	2	head	10
14	17	18	2	tail	15
17	21		2		
	30 30 20 20 10 18 17 15 25 11	30 10 30 10 20 12 20 20 10 14 17 19 15 22 25 11 16 14 17 17	30 12 30 10 20 20 12 15 20 20 19 10 19 22 17 19 25 15 22 17 25 17 11 16 21 14 17 18	30 12 0 30 10 20 0 20 12 15 0 20 20 0 0 10 19 1 1 18 14 22 1 17 19 25 1 15 22 1 25 17 2 11 16 21 2 14 17 18 2	30 12 0 30 10 20 0 20 12 15 0 20 20 0 0 10 19 1 1 18 14 22 1 17 19 25 1 15 22 1 25 17 2 idx 11 16 21 2 head 14 17 18 2 tail



<Figure 2>

1	2	3	4	5	6	7	8	9
14	16	0	0	0	0	0	0	0
25	18	0	0	0	0	0	0	0

drop_off

weight {10: 30, 12: 30, 20: 20, 15: 20, 14: 10, 19: 18, 22: 17, 25: 15, 16: 25, 17: 11, 21: 14, 18: 17}

prv {12: 0, 20: 12, 15: 20, 19: 0, 22: 19, 25: 22, 17: 0, 21: 17, 18: 21, 10: 15, 14: 0, 16: 0})

nxt {10: 0, 12: 20, 20: 15, 14: 0, 19: 22, 22: 25, 16: 0, 17: 21, 21: 18, 15: 10})

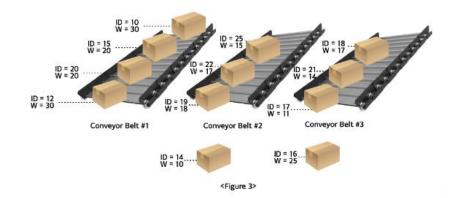
head [12, 19, 17, 0, 0, 0, 0, 0, 0, 0]

tail [10, 25, 18, 0, 0, 0, 0, 0, 0, 0]

broken [False, False, F

belt_num {10: 0, 12: 0, 20: 0, 15: 0, 14: -1, 19: 1, 22: 1, 25: 1, 16: -1, 17: 2, 21: 2, 18: 2})

i	d	w	prv	nxt	bel	t_num	
1	0	30	15	0	0		
1	2	30	0	20	0		
2	.0	20	12	15	0		
1	5	20	20	10	0		
1	4	10	0	0	-1		
1	9	18	0	22	1		
2	.2	17	19	25	1		
2	.5	15	22		1		
1	6	25	0	0	-1	idx	0
1	7	11	0	21	2	head	12
2	.1	14	17	18	2	tail	10
1	8	17	21		2		



2	3	4	5	6	7	8	9
17	0	0	0	0	0	0	0
18	0	0	0	0	0	0	0

25

remove

weight {10: 30, 12: 30, 20: 20, 15: 20, 14: 10, 19: 18, 22: 17, 25: 15, 16: 25, 17: 11, 21: 14, 18: 17} prv {12: 0, 20: 12, 15: 20, 19: 0, 22: 0, 25: 19, 17: 0, 21: 17, 18: 21, 10: 15, 14: 0, 16: 0}) nxt {10: 0, 12: 20, 20: 15, 14: 0, 19: 25, 22: 0, 16: 0, 17: 21, 21: 18, 15: 10}) head [12, 19, 17, 0, 0, 0, 0, 0, 0, 0] tail [10, 25, 18, 0, 0, 0, 0, 0, 0, 0]

broken [False, False, F

belt_num {10: 0, 12: 0, 20: 0, 15: 0, 14: -1, 19: 1, 22: -1, 25: 1, 16: -1, 17: 2, 21: 2, 18: 2})

id	W	prv	nxt	bel	lt_num									
10	30	15	0	0										
12	30	0	20	0										
20	20	12	15	0										
15	20	20	10	0										
14	10	0	0	-1										
19	18	0	25	1										
22	17	0	0	-1										
25	15	19		1										
16	25	0	0	-1	idx	0	1	2	3	4	5	6	7	7 8
17	11	0	21	2	head	12	19	17	0	0	0	0	0	0 0
21	14	17	18	2	tail	10	25	18	0	0	0	0	0	0 0
18	17	21		2										