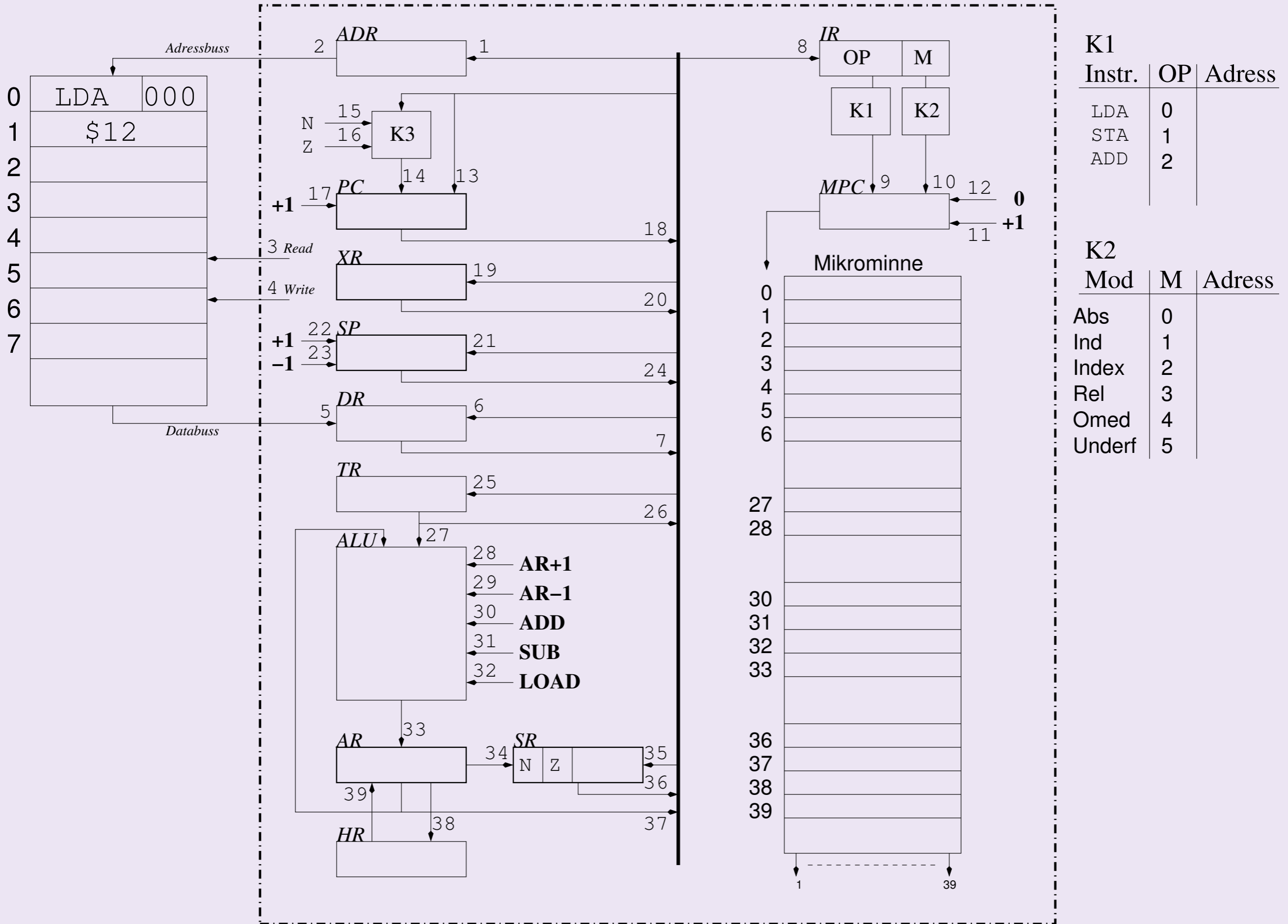
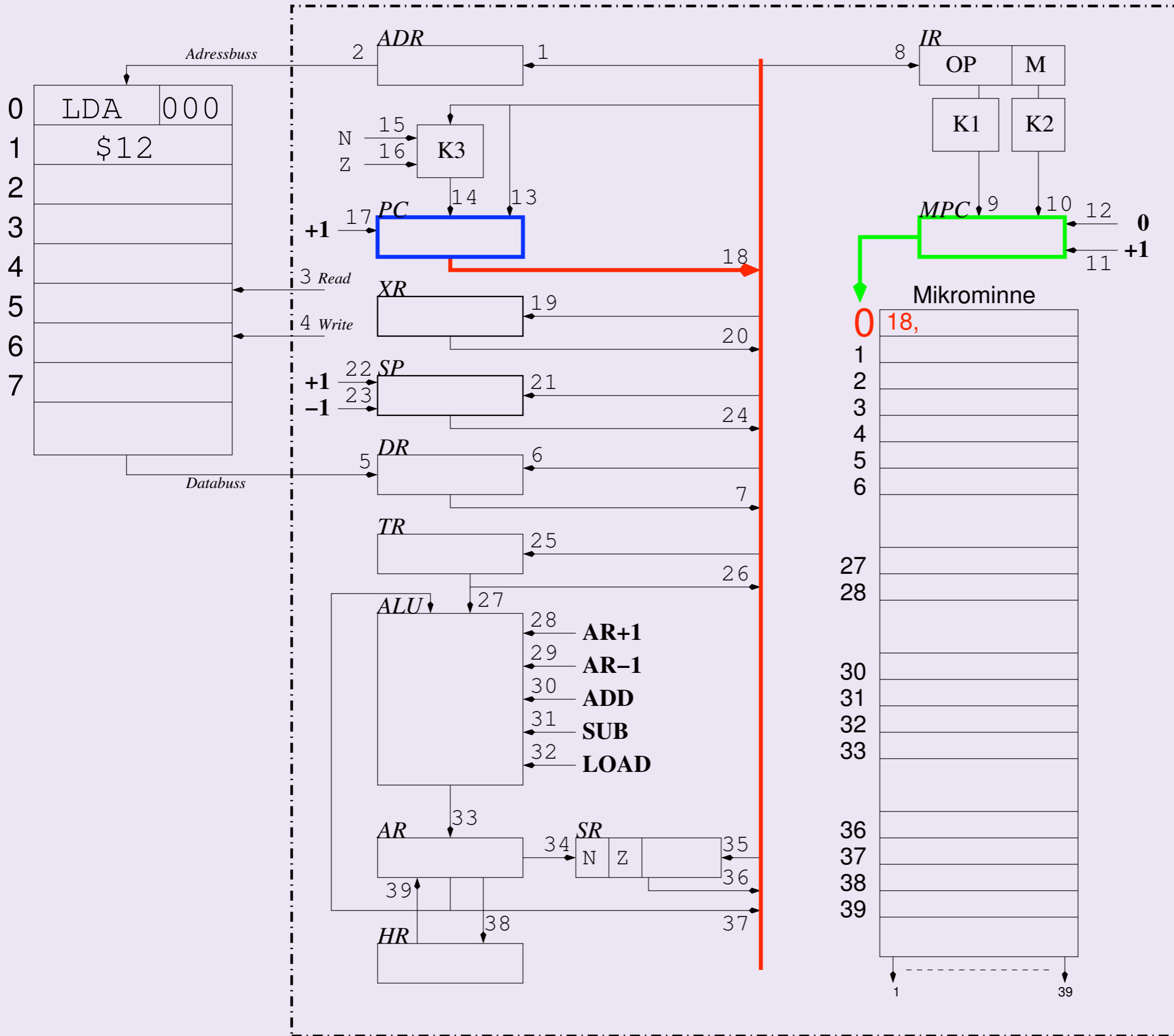


Mikroprogrammering

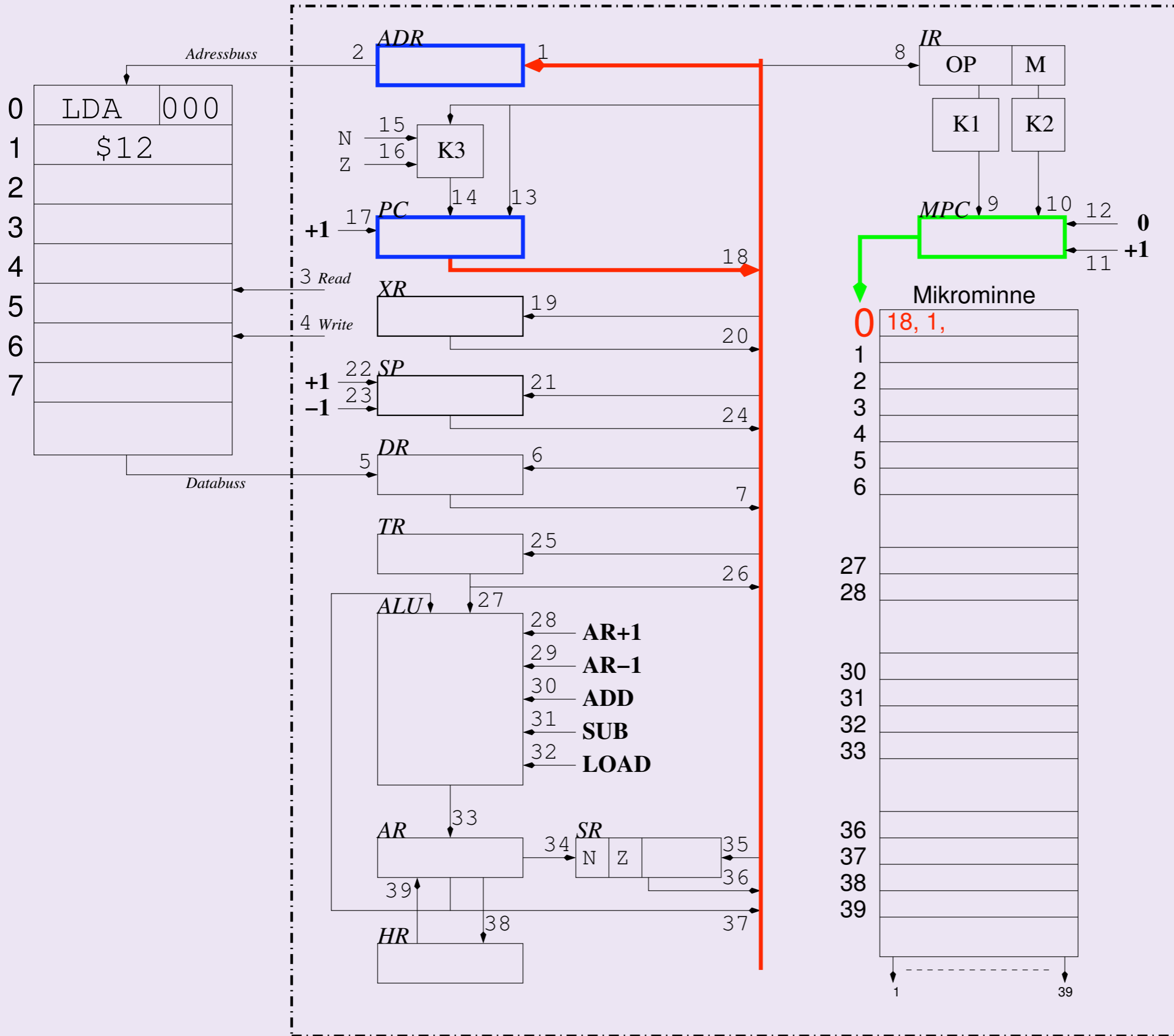
Steg för steg
Michael Josefsson
Januari 2004





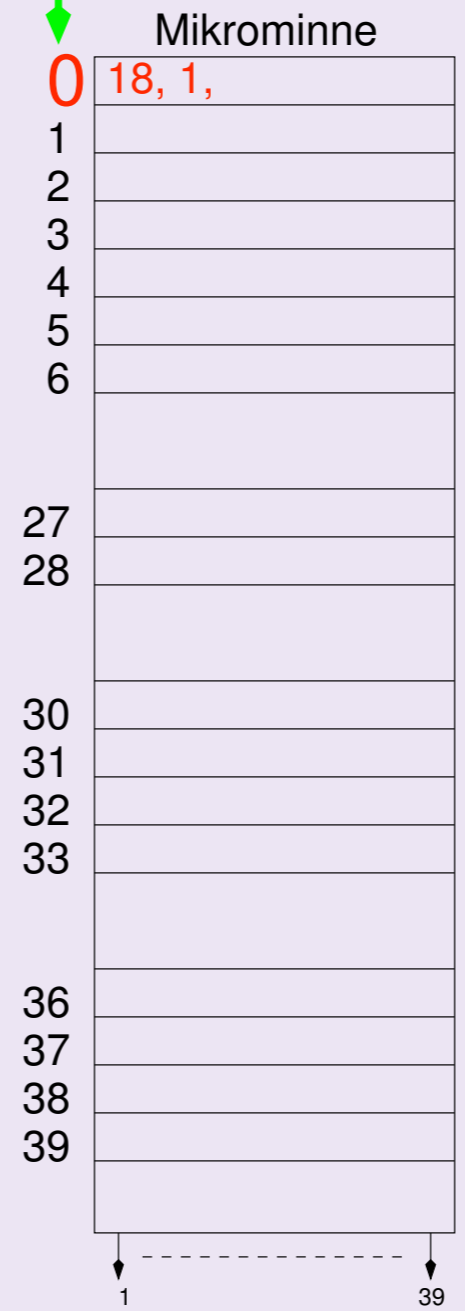
K1		
Instr.	OP	Address
LDA	0	
STA	1	
ADD	2	

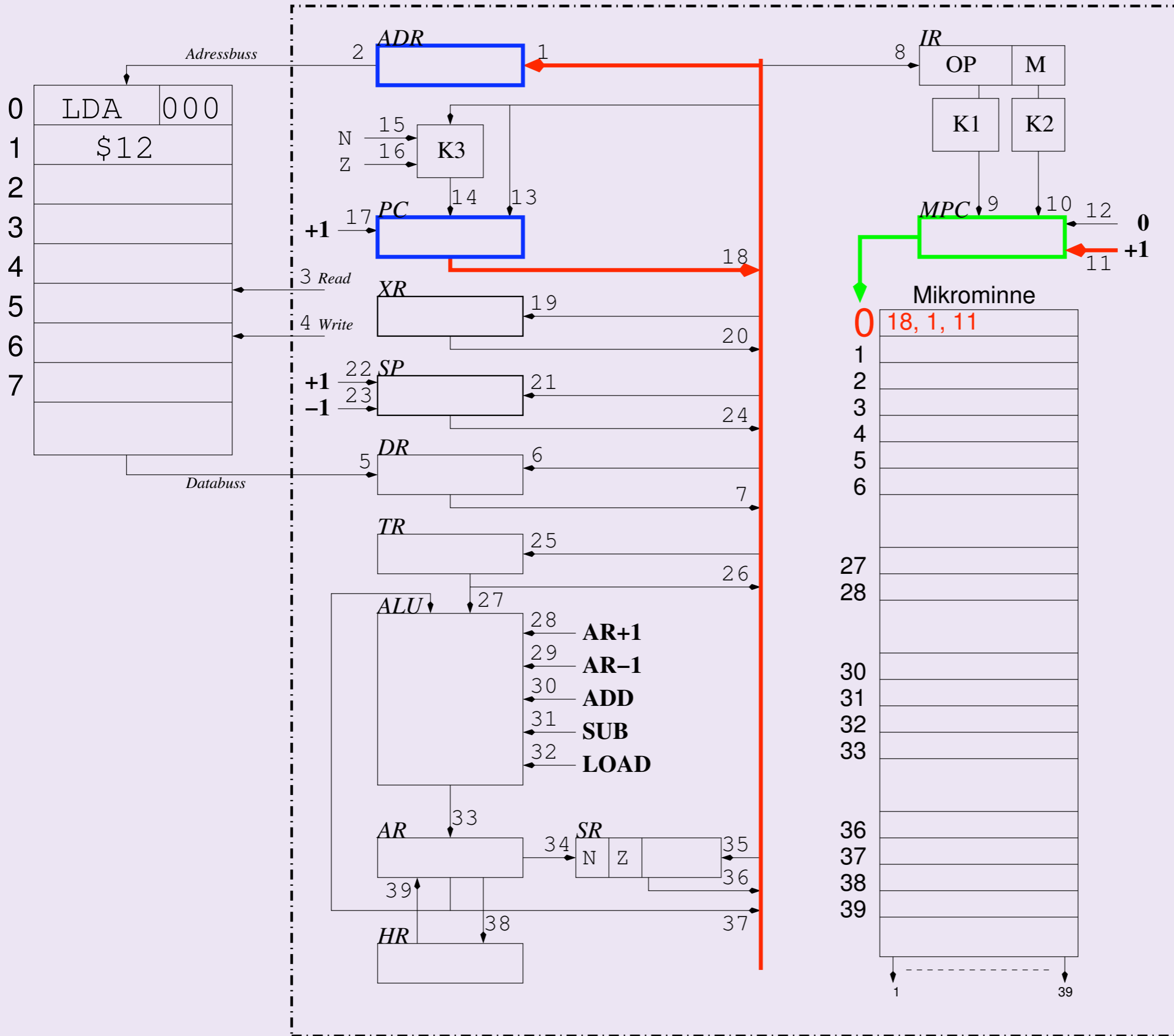
K2		
Mod	M	Address
Abs	0	
Ind	1	
Index	2	
Rel	3	
Omed	4	
Underf	5	



K1		
Instr.	OP	Address
LDA	0	
STA	1	
ADD	2	

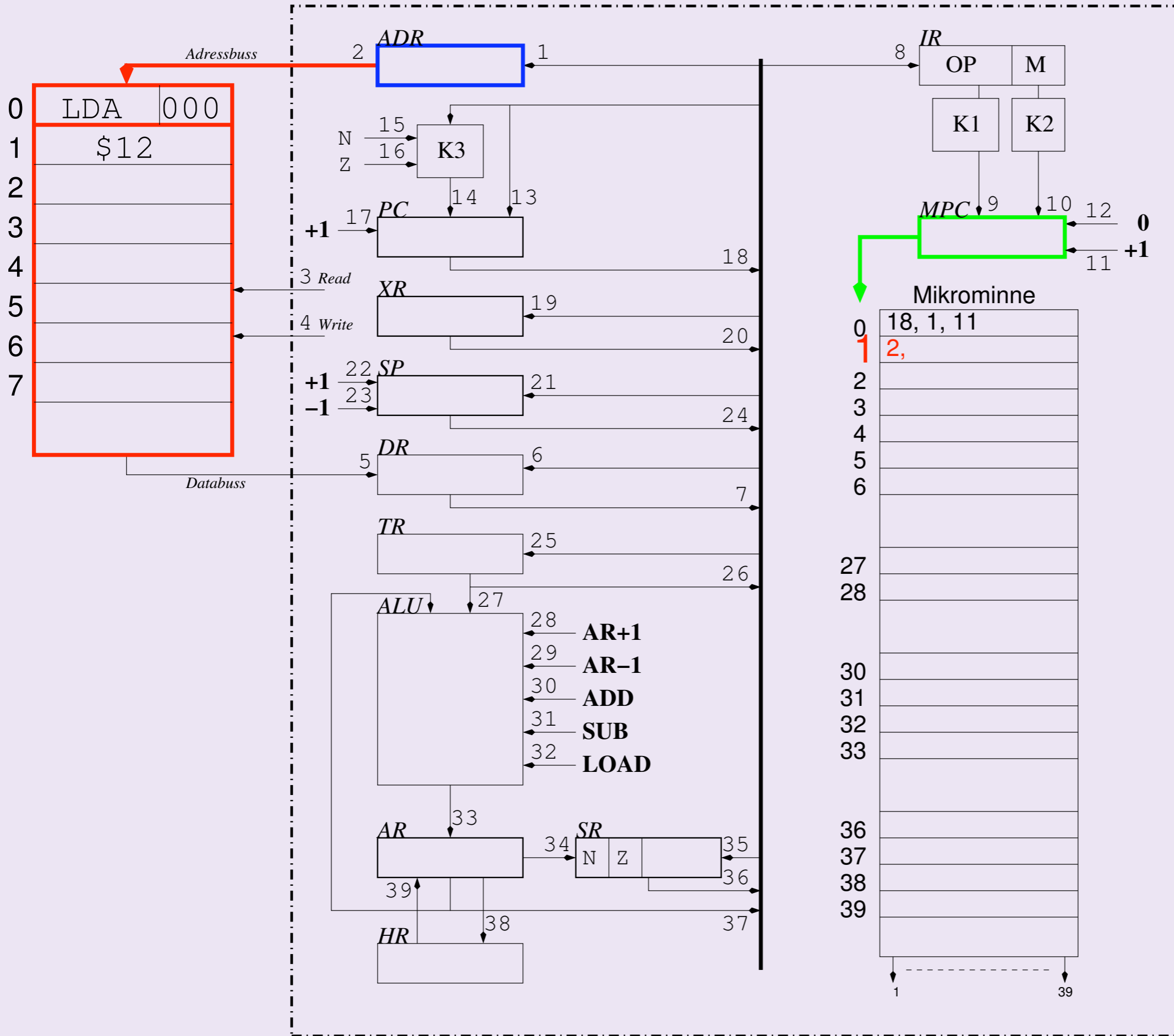
K2		
Mod	M	Address
Abs	0	
Ind	1	
Index	2	
Rel	3	
Omed	4	
Underf	5	





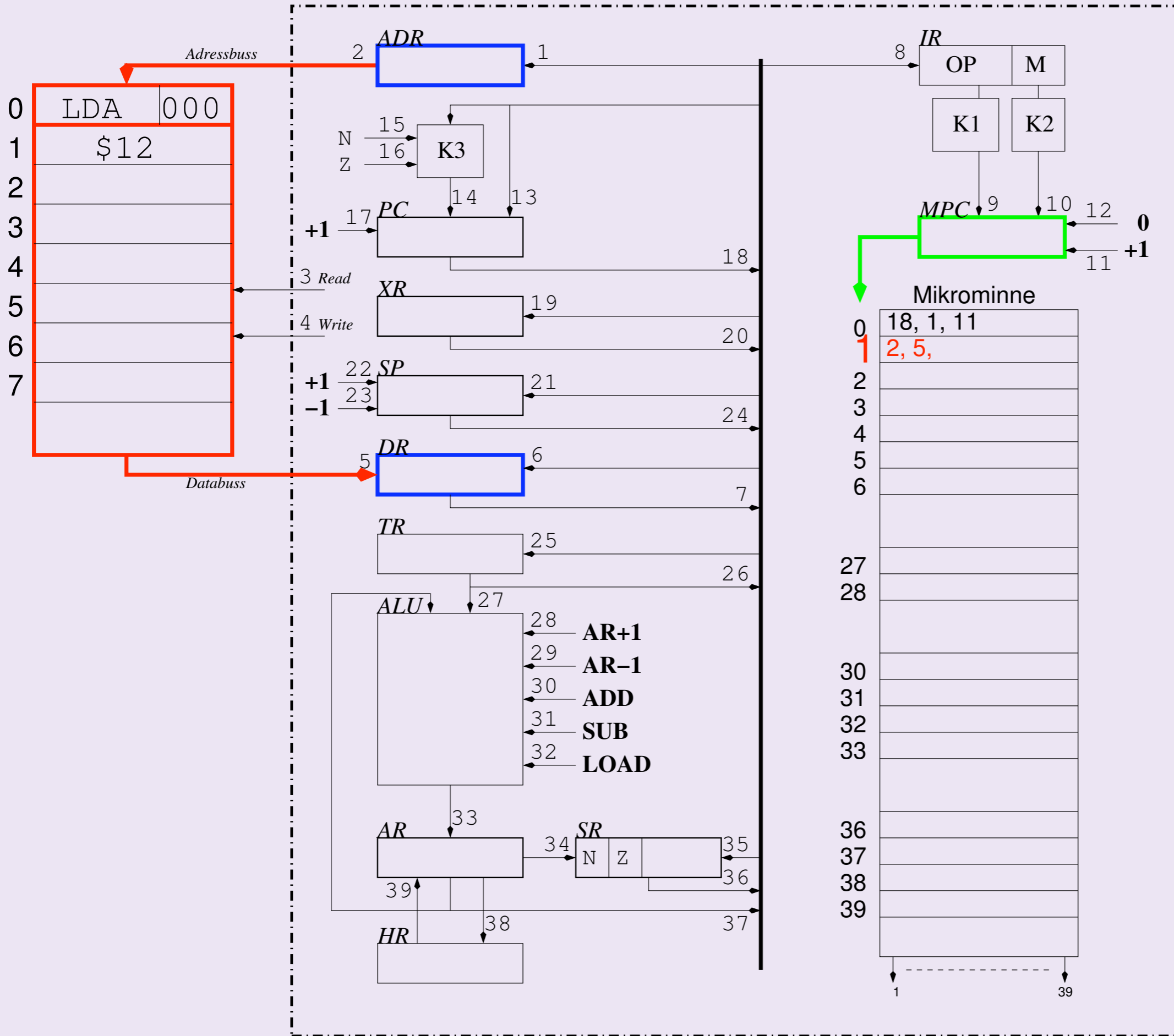
K1		
Instr.	OP	Address
LDA	0	
STA	1	
ADD	2	

K2		
Mod	M	Address
Abs	0	
Ind	1	
Index	2	
Rel	3	
Omed	4	
Underf	5	



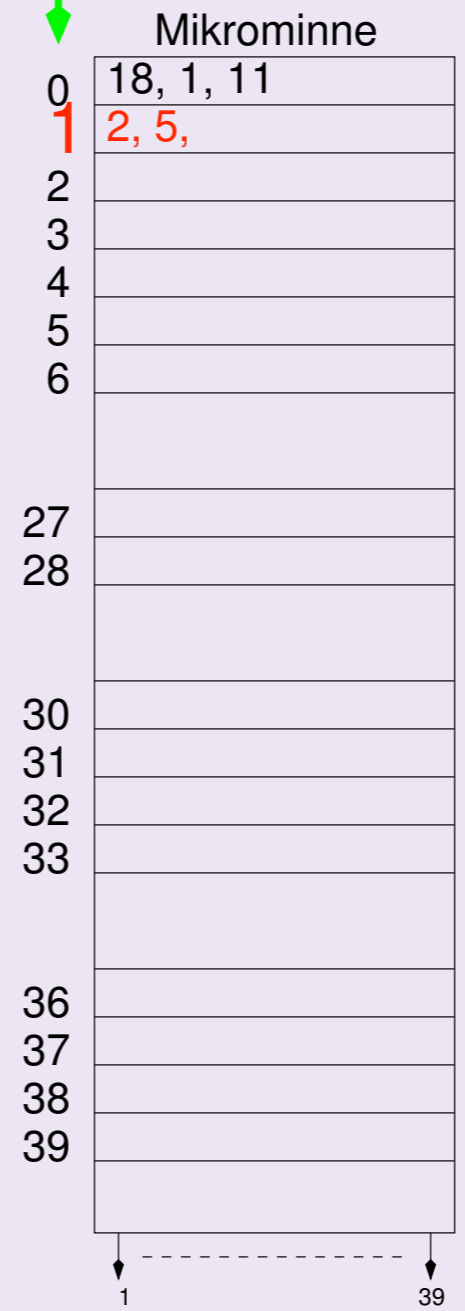
K1		
Instr.	OP	Address
LDA	0	
STA	1	
ADD	2	

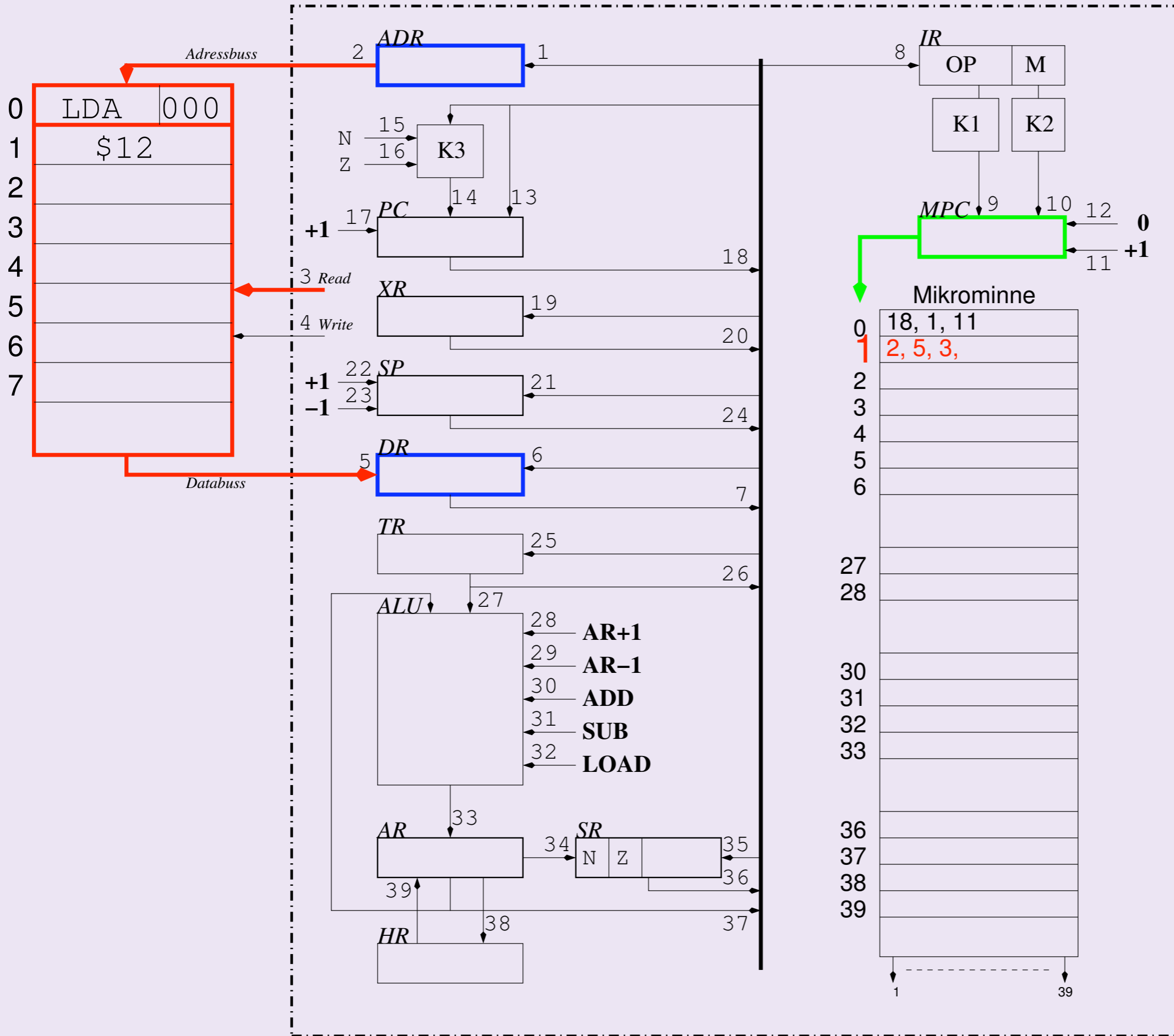
K2		
Mod	M	Address
Abs	0	
Ind	1	
Index	2	
Rel	3	
Omed	4	
Underf	5	



K1		
Instr.	OP	Address
LDA	0	
STA	1	
ADD	2	

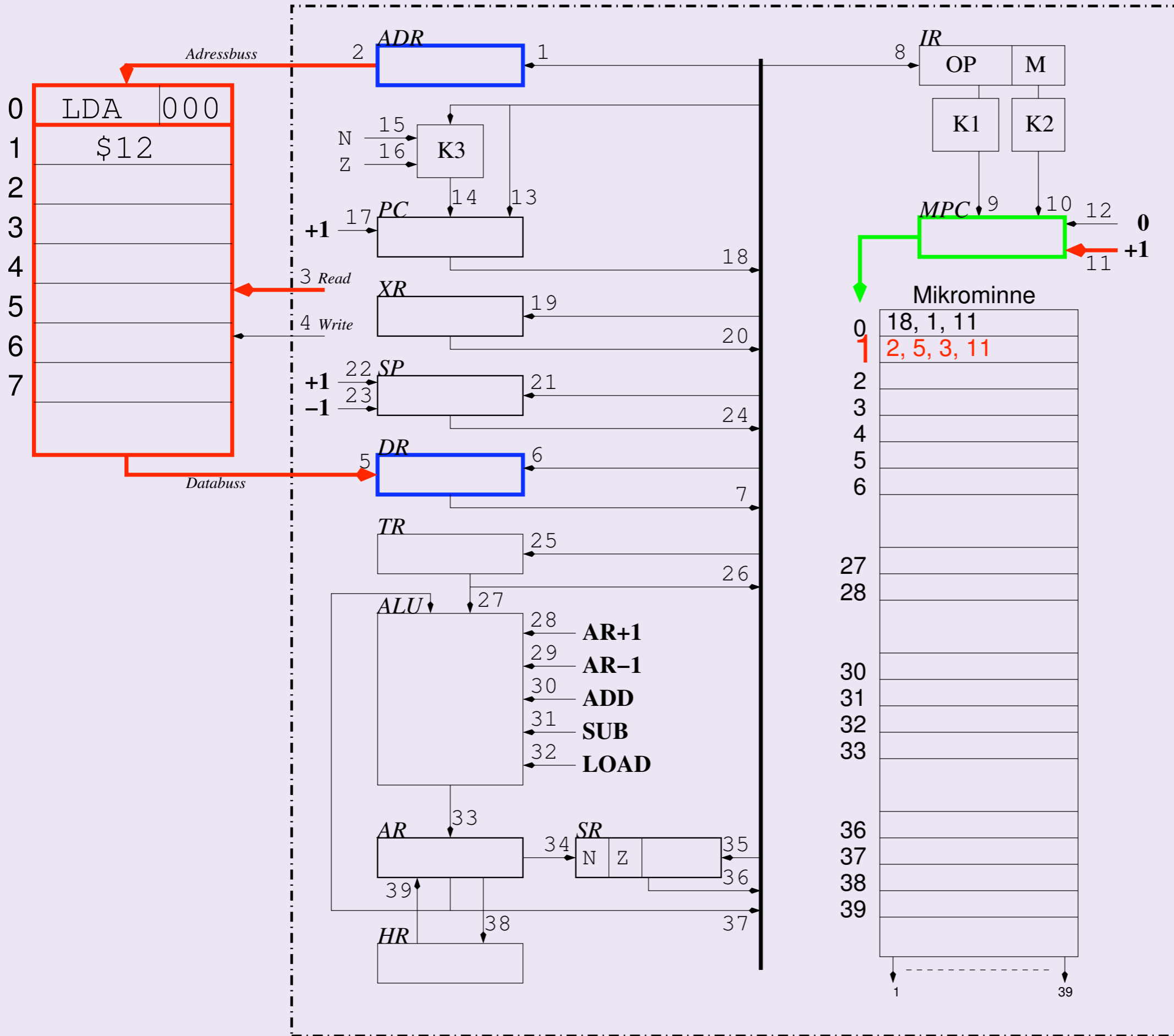
K2		
Mod	M	Address
Abs	0	
Ind	1	
Index	2	
Rel	3	
Omed	4	
Underf	5	





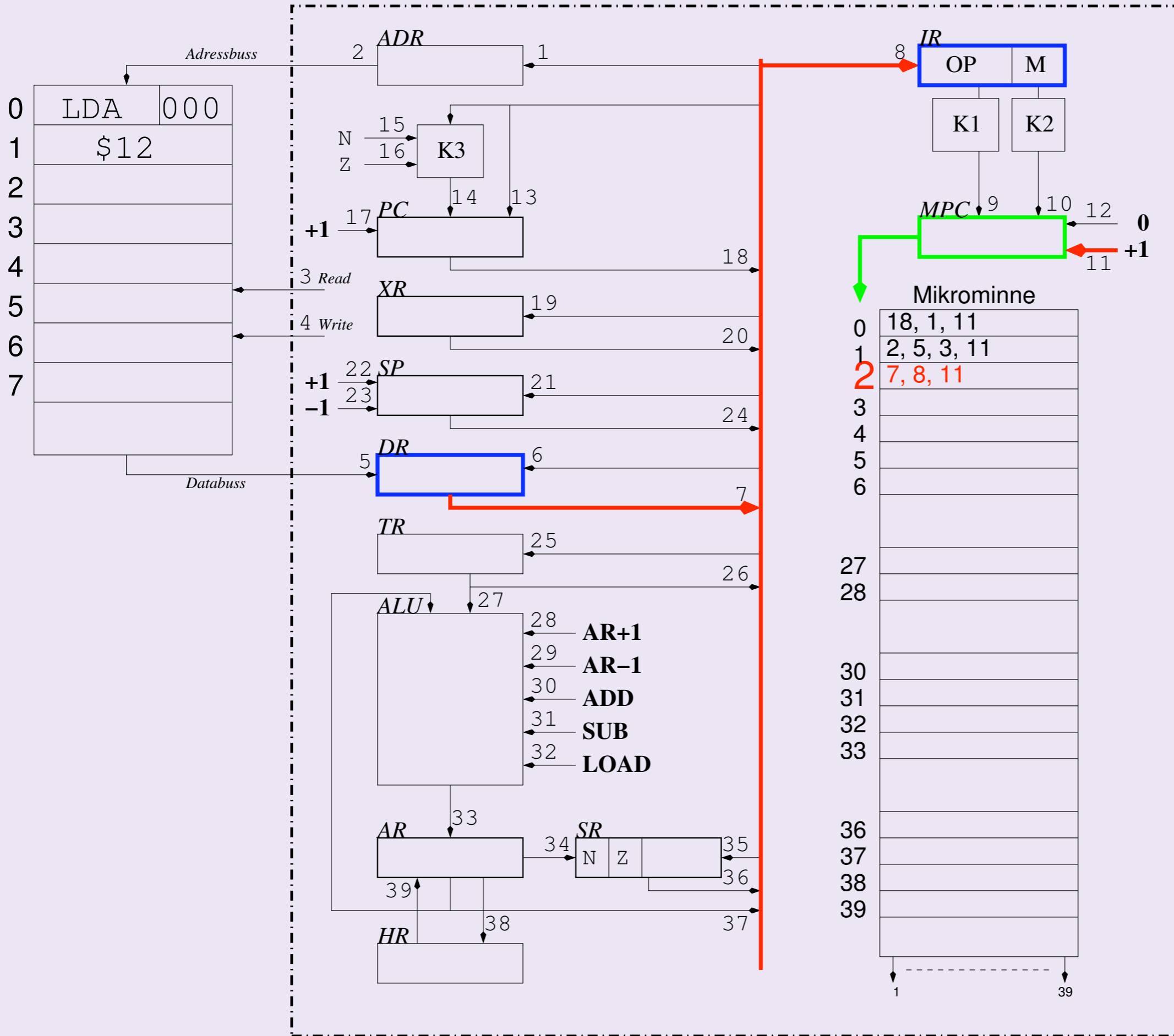
K1		
Instr.	OP	Address
LDA	0	
STA	1	
ADD	2	

K2		
Mod	M	Address
Abs	0	
Ind	1	
Index	2	
Rel	3	
Omed	4	
Underf	5	



K1		
Instr.	OP	Address
LDA	0	
STA	1	
ADD	2	

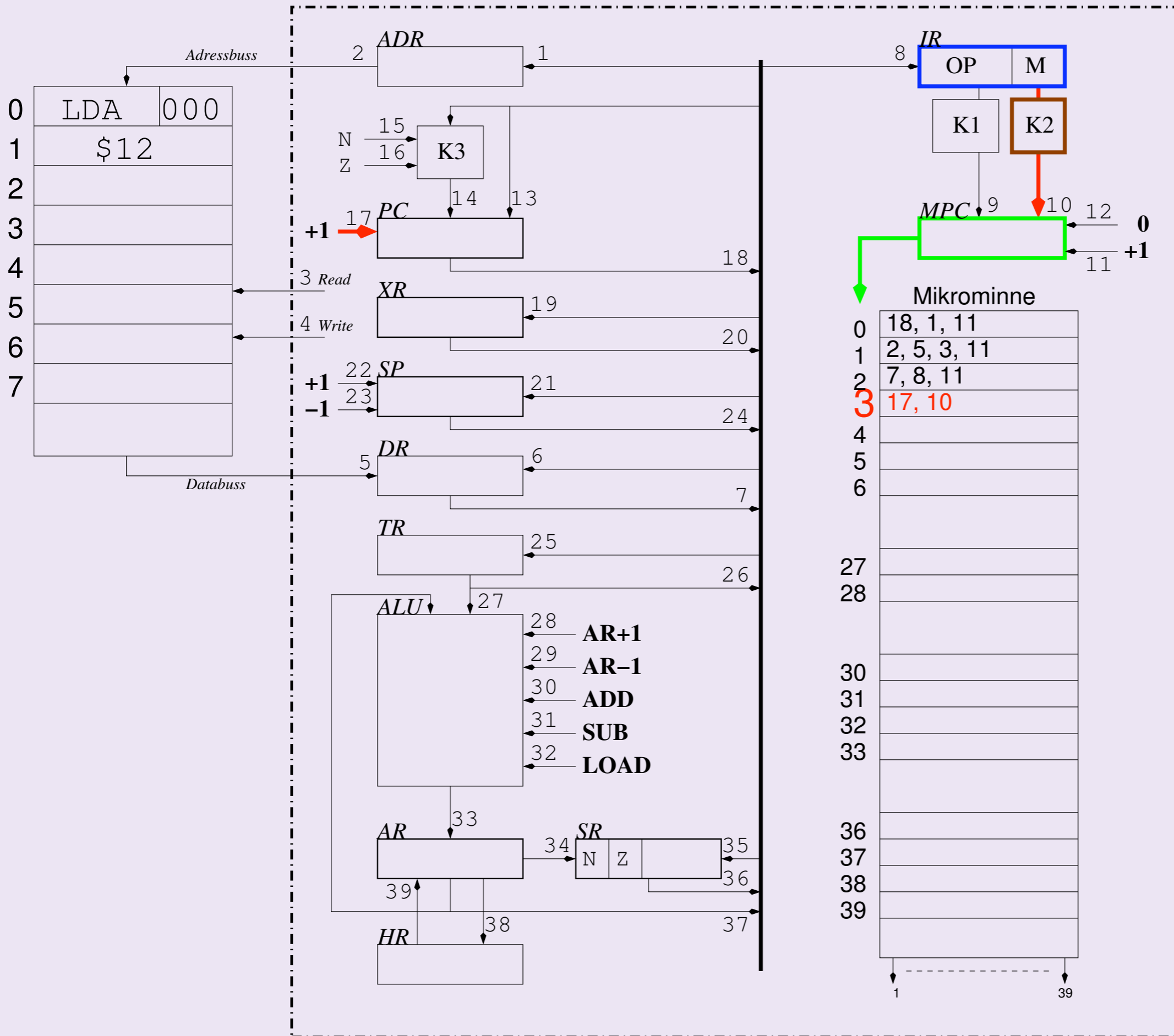
K2		
Mod	M	Address
Abs	0	
Ind	1	
Index	2	
Rel	3	
Omed	4	
Underf	5	



K1		
Instr.	OP	Address
LDA	0	
STA	1	
ADD	2	

K2		
Mod	M	Address
Abs	0	
Ind	1	
Index	2	
Rel	3	
Omed	4	
Underf	5	

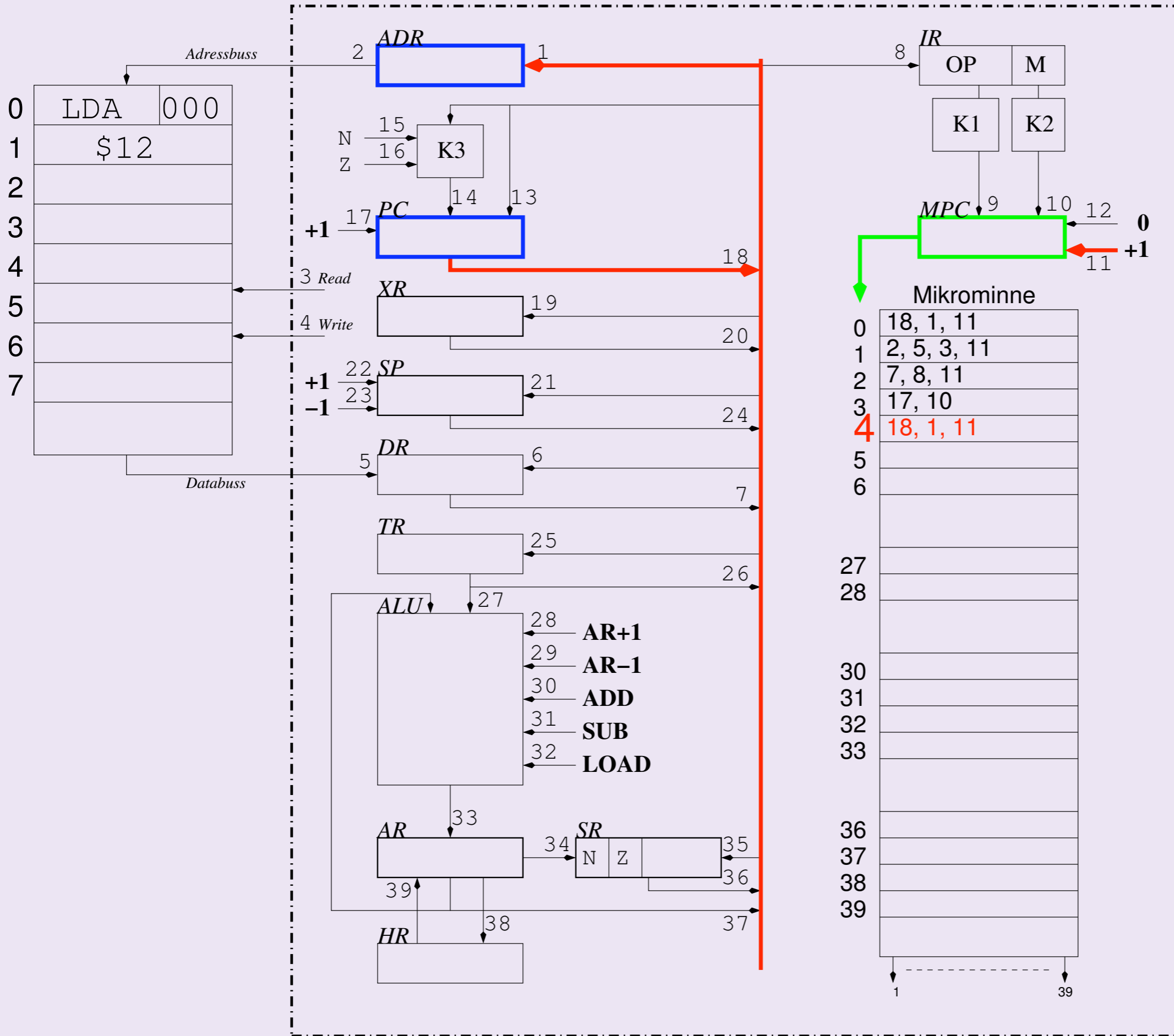
Mikrominne	
0	18, 1, 11
1	2, 5, 3, 11
2	7, 8, 11
3	
4	
5	
6	
27	
28	
30	
31	
32	
33	
36	
37	
38	
39	



K1		
Instr.	OP	Address
LDA	0	
STA	1	
ADD	2	

K2		
Mod	M	Address
Abs	0	4
Ind	1	
Index	2	
Rel	3	
Omed	4	
Underf	5	

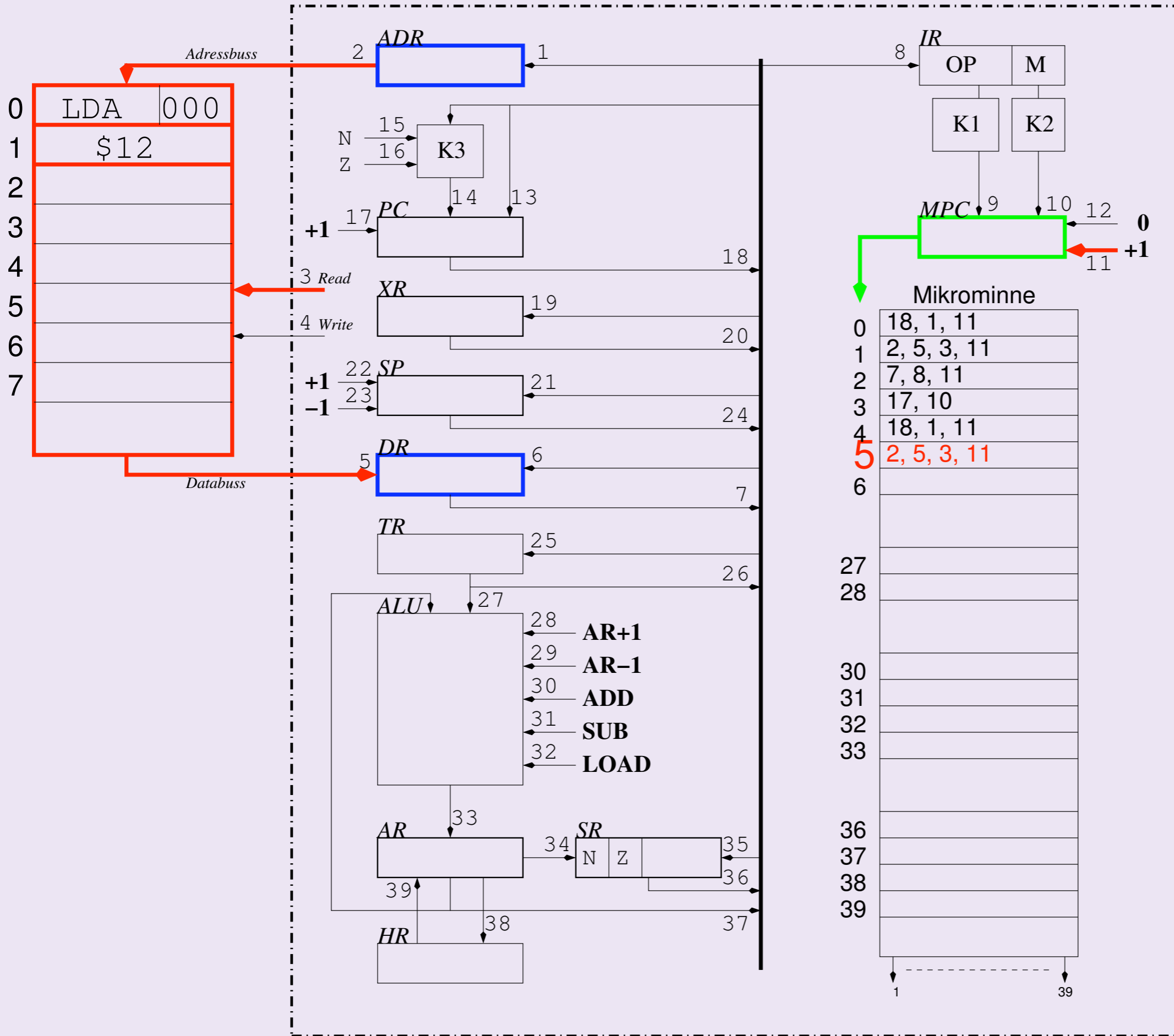
Mikrominne	
0	18, 1, 11
1	2, 5, 3, 11
2	7, 8, 11
3	17, 10
4	
5	
6	
7	
8	
9	
10	
11	
12	
13	
14	
15	
16	
17	
18	
19	
20	
21	
22	
23	
24	
25	
26	
27	
28	
29	
30	
31	
32	
33	
34	
35	
36	
37	
38	
39	



K1		
Instr.	OP	Address
LDA	0	
STA	1	
ADD	2	

K2		
Mod	M	Address
Abs	0	4
Ind	1	
Index	2	
Rel	3	
Omed	4	
Underf	5	

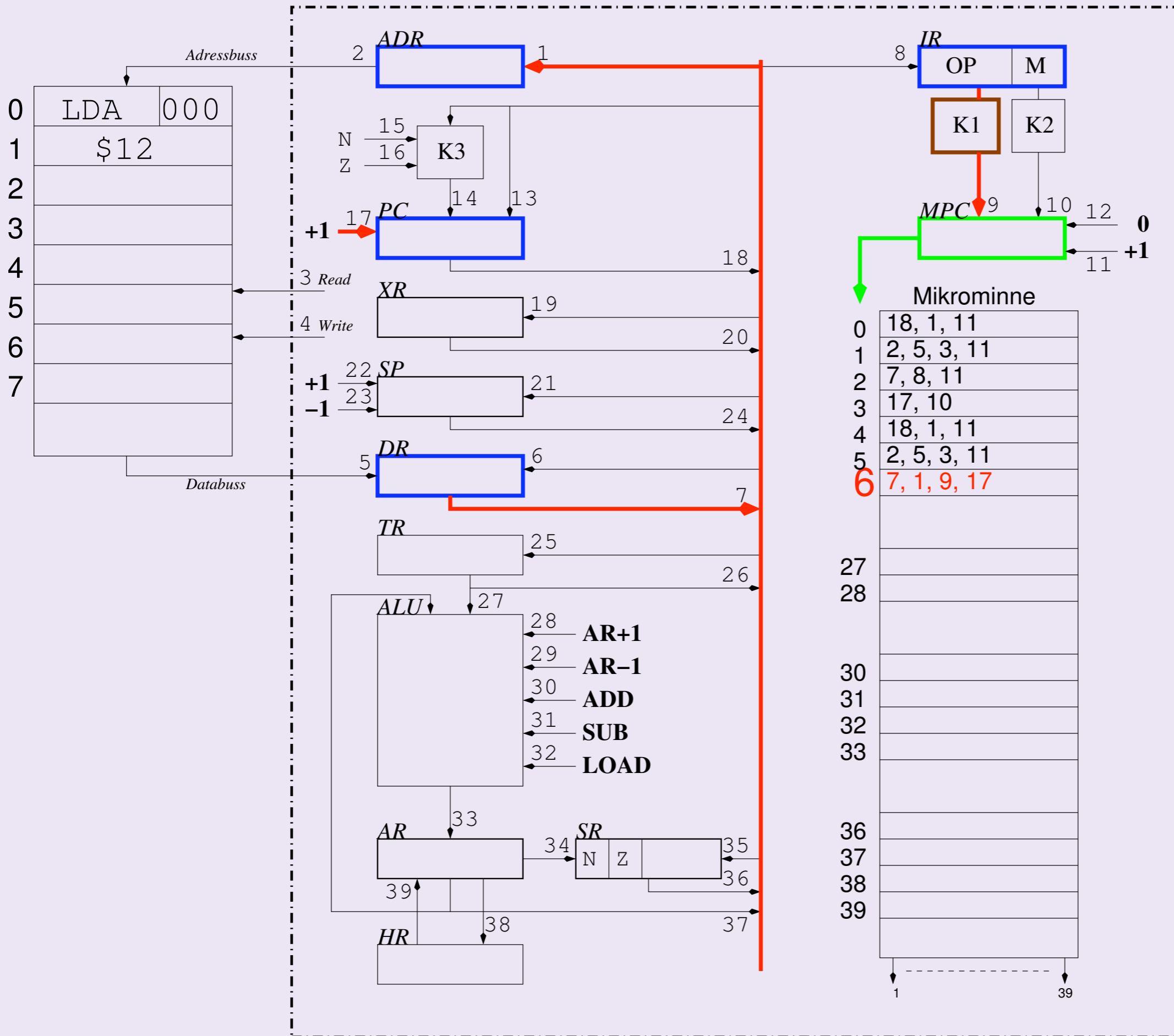
Mikrominne	
0	18, 1, 11
1	2, 5, 3, 11
2	7, 8, 11
3	17, 10
4	18, 1, 11
5	
6	
7	
8	
9	
10	
11	
12	
13	
14	
15	
16	
17	
18	
19	
20	
21	
22	
23	
24	
25	
26	
27	
28	
29	
30	
31	
32	
33	
34	
35	
36	
37	
38	
39	



K1		
Instr.	OP	Address
LDA	0	
STA	1	
ADD	2	

K2		
Mod	M	Address
Abs	0	4
Ind	1	
Index	2	
Rel	3	
Omed	4	
Underf	5	

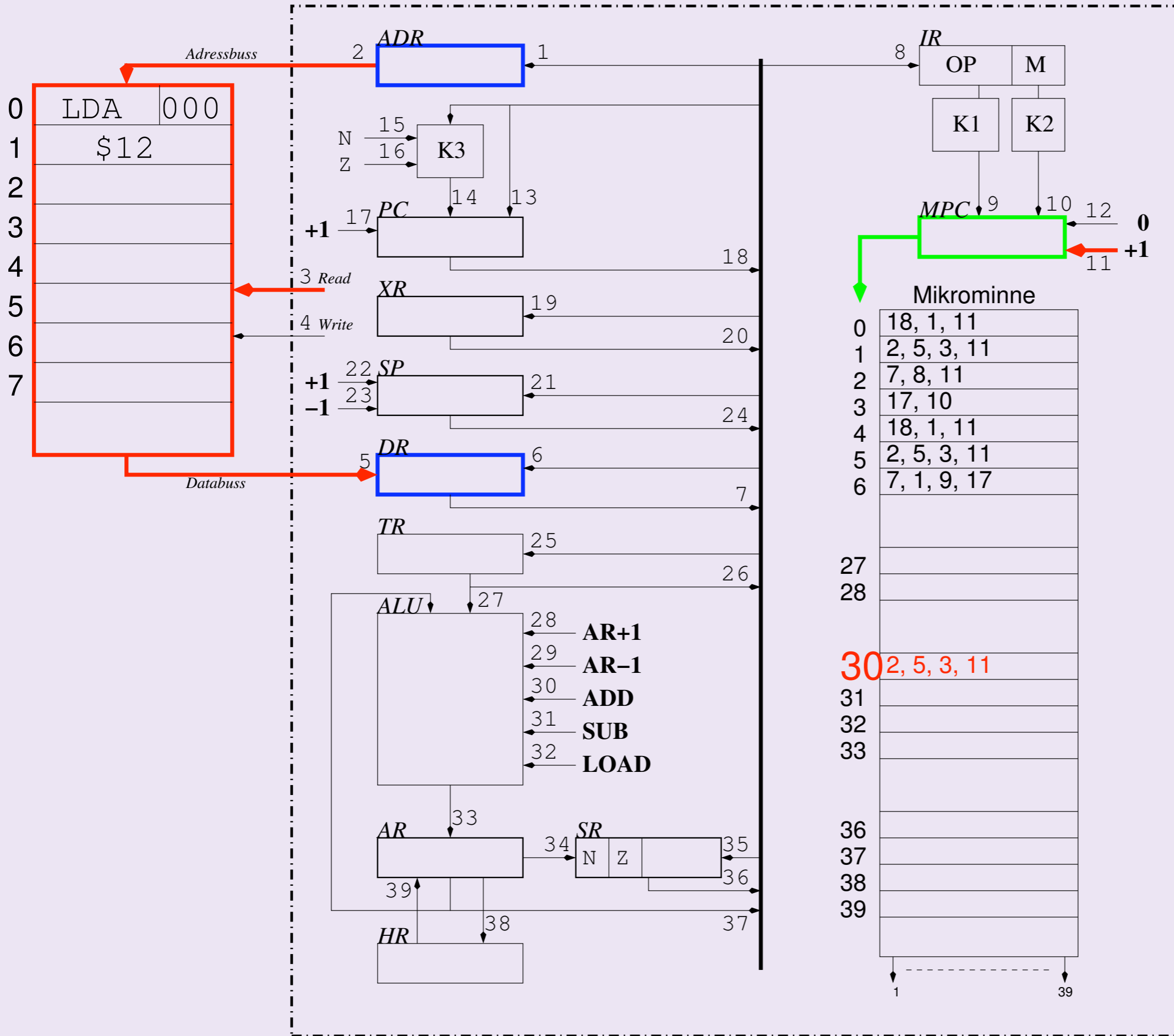
Mikrominne	
0	18, 1, 11
1	2, 5, 3, 11
2	7, 8, 11
3	17, 10
4	18, 1, 11
5	2, 5, 3, 11
6	
7	
8	
9	
10	
11	
12	
13	
14	
15	
16	
17	
18	
19	
20	
21	
22	
23	
24	
25	
26	
27	
28	
29	
30	
31	
32	
33	
34	
35	
36	
37	
38	
39	



K1		
Instr.	OP	Address
LDA	0	30
STA	1	
ADD	2	

K2		
Mod	M	Address
Abs	0	4
Ind	1	
Index	2	
Rel	3	
Omed	4	
Underf	5	

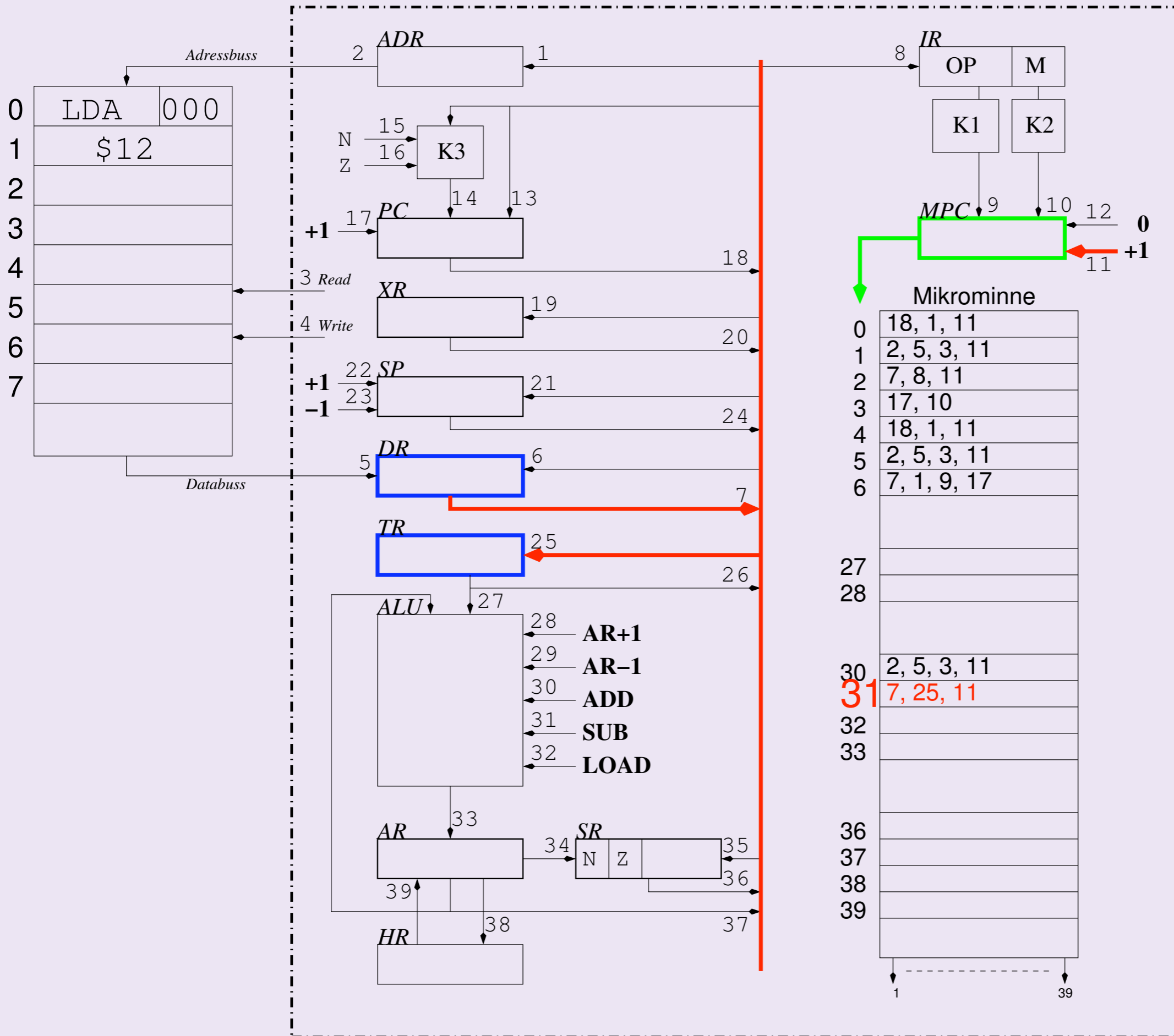
Mikrominne	
0	18, 1, 11
1	2, 5, 3, 11
2	7, 8, 11
3	17, 10
4	18, 1, 11
5	2, 5, 3, 11
6	7, 1, 9, 17
7	
8	
9	
10	
11	
12	
13	
14	
15	
16	
17	
18	
19	
20	
21	
22	
23	
24	
25	
26	
27	
28	
29	
30	
31	
32	
33	
34	
35	
36	
37	
38	
39	



K1		
Instr.	OP	Adress
LDA	0	30
STA	1	
ADD	2	

K2		
Mod	M	Adress
Abs	0	4
Ind	1	
Index	2	
Rel	3	
Omed	4	
Underf	5	

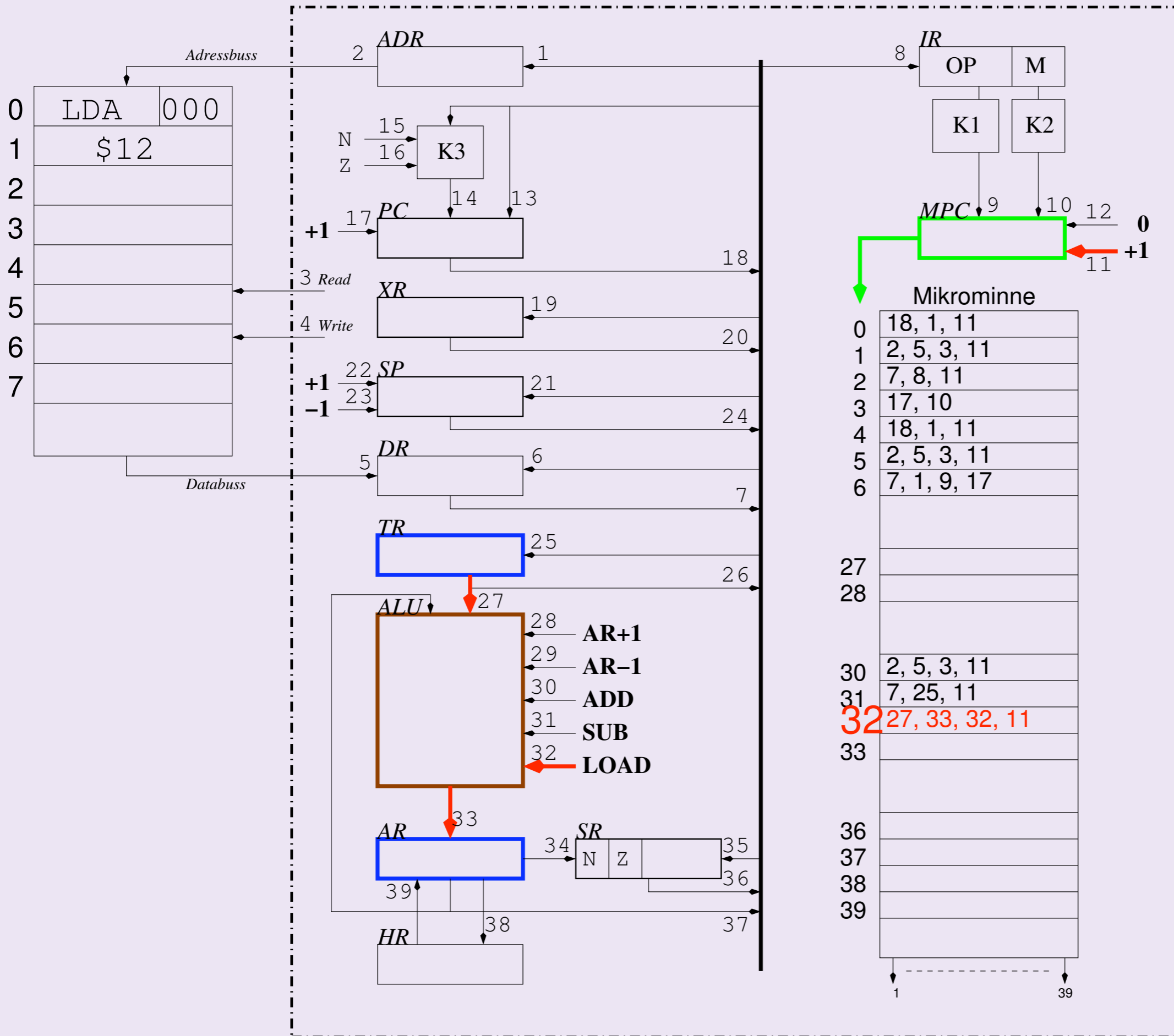
Mikrominne	
0	18, 1, 11
1	2, 5, 3, 11
2	7, 8, 11
3	17, 10
4	18, 1, 11
5	2, 5, 3, 11
6	7, 1, 9, 17
7	
8	
9	
10	
11	
12	
13	
14	
15	
16	
17	
18	
19	
20	
21	
22	
23	
24	
25	
26	
27	
28	
29	
30	2, 5, 3, 11
31	
32	
33	
34	
35	
36	
37	
38	
39	



K1		
Instr.	OP	Address
LDA	0	30
STA	1	
ADD	2	

K2		
Mod	M	Address
Abs	0	4
Ind	1	
Index	2	
Rel	3	
Omed	4	
Underf	5	

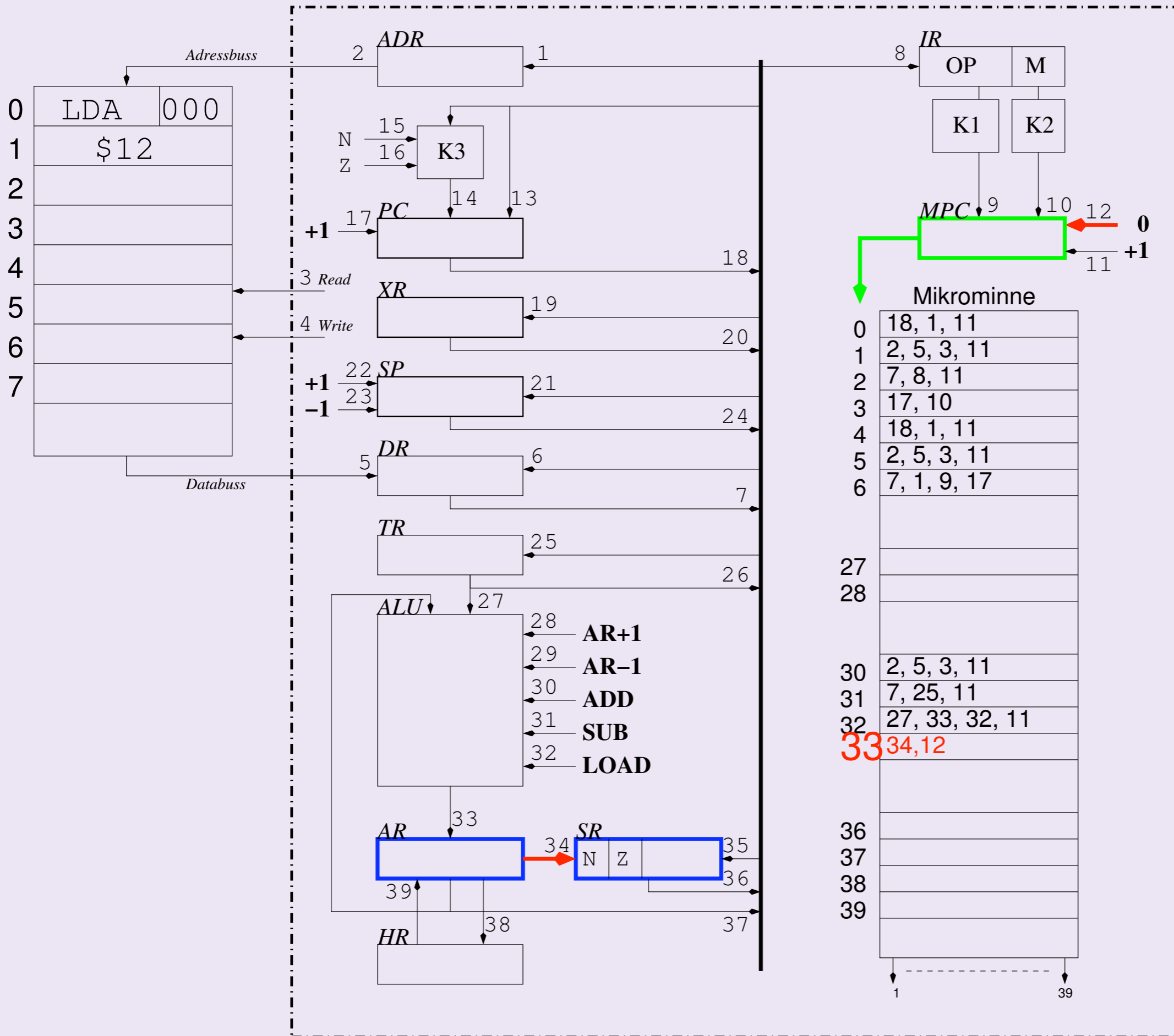
Mikrominne	
0	18, 1, 11
1	2, 5, 3, 11
2	7, 8, 11
3	17, 10
4	18, 1, 11
5	2, 5, 3, 11
6	7, 1, 9, 17
27	
28	
30	2, 5, 3, 11
31	7, 25, 11
32	
33	
36	
37	
38	
39	



K1		
Instr.	OP	Address
LDA	0	30
STA	1	
ADD	2	

K2		
Mod	M	Address
Abs	0	4
Ind	1	
Index	2	
Rel	3	
Omed	4	
Underf	5	

Mikrominne	
0	18, 1, 11
1	2, 5, 3, 11
2	7, 8, 11
3	17, 10
4	18, 1, 11
5	2, 5, 3, 11
6	7, 1, 9, 17
7	
8	
9	
10	
11	
12	
13	
14	
15	
16	
17	
18	
19	
20	
21	
22	
23	
24	
25	
26	
27	
28	
29	
30	2, 5, 3, 11
31	7, 25, 11
32	27, 33, 32, 11
33	
34	
35	
36	
37	
38	
39	



K1		
Instr.	OP	Address
LDA	0	30
STA	1	
ADD	2	

K2		
Mod	M	Address
Abs	0	4
Ind	1	
Index	2	
Rel	3	
Omed	4	
Underf	5	

Mikrominne	
0	18, 1, 11
1	2, 5, 3, 11
2	7, 8, 11
3	17, 10
4	18, 1, 11
5	2, 5, 3, 11
6	7, 1, 9, 17
7	
8	
9	
10	
11	
12	
13	
14	
15	
16	
17	
18	
19	
20	
21	
22	
23	
24	
25	
26	
27	
28	
29	
30	2, 5, 3, 11
31	7, 25, 11
32	27, 33, 32, 11
33	34, 12
34	
35	
36	
37	
38	
39	