Starting state

Memory-

00 mov ax, 05h

01 mov bx, 06h

02 add ax, bx

03 mov 07h, ax

05h=2

06h=3

CS 00h

DS 05h

Addition animation-

1. ***Setup***
   1. ***PC set 00h***
   2. ***CU set FETCH***
   3. ***PC red***
   4. ***MAR blue***
   5. ***CS set 00h***
   6. ***DS set 05h***
2. *R/W block set: 00h*
3. *R/W block PC to upper bus*
4. *Upper bus to MAR*
5. *MAR set: 00h*
6. ***Setup***
   1. ***PC blank***
   2. ***MAR blank***
   3. ***MDR set MOV AX, 05h***
   4. ***MDR blue***
7. **Setup**
   1. ***MDR red***
   2. **IR blue**
8. R/W block set: mov ax, 05h
9. R/W block MDR to lower bus
10. R/W lower bus to IR
11. *IR set: mov ax, 05h*
12. R/W block set: 05h
13. R/W block IR to upper bus
14. Upper bus to MAR
15. MAR set: 05h
16. R/W arm to 05h
17. MDR set: 2
18. R/W block set: 2
19. R/W block MDR to lower bus
20. R/W lower bus to ax
21. **PC goes to 01**
22. R/W block set: 01
23. R/W block PC to upper bus
24. Upper bus to MAR
25. MAR set: 01
26. R/W arm to 01h
27. MDR set: mov bx, 11h
28. R/W block set: mov bx, 11h
29. R/W block MDR to lower bus
30. R/W lower bus to IR
31. IR set: mov bx, 11h
32. R/W block set: 11h
33. R/W block IR to upper bus
34. Upper bus to MAR
35. MAR set: 11h
36. R/W arm to 11h
37. MDR set: 3
38. R/W block set: 3
39. R/W block MDR to lower bus
40. R/W lower bus to bx
41. **PC goes to 02**
42. R/W block set: 02h
43. R/W block PC to upper bus
44. Lower bus to MAR
45. MAR set to 02h
46. Bring R/W arm to 02h
47. MDR set to: add ax, bx
48. R/W set: add ax, bx
49. R/W MDR to lower bus
50. Lower bus to IR
51. IR set: add ax, bx
52. R/W block ax to sub conveyor
53. Sub conveyor to A
54. R/W block bx to sub conveyor
55. Sub conveyor to B
56. R/W block set: 5
57. R/W block C to sub conveyor
58. Sub conveyor to ax
59. **PC goes to 03**
60. R/W block set: 03h
61. R/W block PC to upper bus
62. Upper bus to MAR
63. MAR set: 03h
64. R/W arm to 03h
65. MDR set: mov 12h, 5
66. R/W block set: mov 07h, 5
67. R/W block MDR to lower bus
68. Lower bus to IR
69. IR set: mov 12h, 5
70. W/R block ax ax to upper bus
71. Upper bus to MDR
72. MDR set to: 5
73. W/R block set: 12h
74. W/R block IR to upper bus
75. Upper bus to MAR
76. MAR set to: 12h
77. R/W head to 12h
78. Write ax to 12h

Done