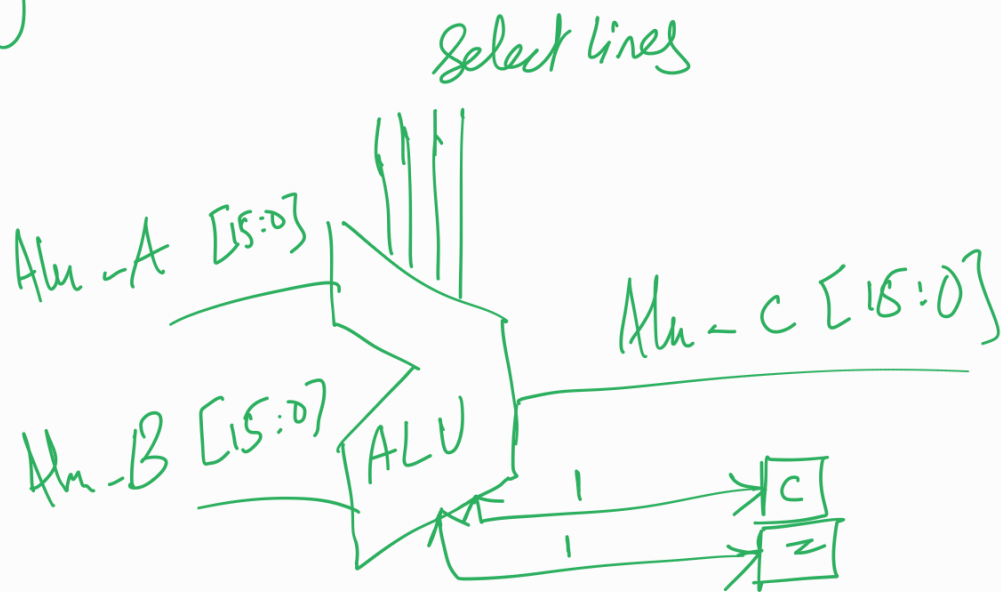


# ALU



NONE  $\rightarrow$  NOP  
0000

ADD  $\rightarrow$  add  $r_c, r_a, r_b$   $r_c = r_a + r_b$   
0001

ADC  $\rightarrow$  adc  $r_c, r_a, r_b$   $r_c = r_a + r_b$   
0010 if carry set.

ADZ  $\rightarrow$  adz  $r_c, r_a, r_b$   $r_c = r_a + r_b$   
0011 if zero set

ADL  $\rightarrow$  adl  $r_c, r_a, r_b$   $r_c = r_a$   
0100  $+ r_b << 1$

ADI  $\rightarrow$  adi  $r_b, r_a, imm6$   $r_b = r_a + imm6$   
0101  $\downarrow$   
sign

0101

sign  
Extender

NDU  $\rightarrow$  ndu  $r_c, r_a, r_b$

$$r_c = \overline{(r_a \& r_b)}$$

0110

NPC  $\rightarrow$  npc  $r_c, r_a, r_b$

$$r_c = \overline{(r_a \& r_b)}$$

0111

if carry set

NDZ  $\rightarrow$  ndz  $r_c, r_a, r_b$

$$r_c = \overline{(r_a \& r_b)}$$

1000

if zero set

