

Z80 Opcode table

| | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | A | B | C | D | E | F |
|---|-----------|-----------|------------|------------|------------|-----------|-------------|-----------|-----------|------------|------------|-----------|------------|----------------|------------|---------|
| 0 | nop | ld bc,xx | ld (bc),a | inc bc | inc b | dec b | ld b,x | rlca | ex af,af' | add hl,bc | ld a,(bc) | dec bc | inc c | dec c | ld c,x | rrca |
| 1 | djnz x | ld de,xx | ld (de),a | inc de | inc d | dec d | ld d,x | rla | jr x | add hl,de | ld a,(de) | dec de | inc e | dec e | ld e,x | rra |
| 2 | jr nz,x | ld hl,xx | ld (xx),hl | inc hl | inc h | dec h | ld h,x | daa | jr z,x | add hl,hl | ld hl,(xx) | dec hl | inc l | dec l | ld l,x | cpl |
| 3 | jr nc,x | ld sp,xx | ld (xx),a | inc sp | inc (hl) | dec (hl) | ld (hl),x | scf | jr c,x | add hl,sp | ld a,(xx) | dec sp | inc a | dec a | ld a,x | ccf |
| 4 | ld b,b | ld b,c | ld b,d | ld b,e | ld b,h | ld b,l | ld b,(hl) | ld b,a | ld c,b | ld c,c | ld c,d | ld c,e | ld c,h | ld c,l | ld c,(hl) | ld c,a |
| 5 | ld d,b | ld d,c | ld d,d | ld d,e | ld d,h | ld d,l | ld d,(hl) | ld d,a | ld e,b | ld e,c | ld e,d | ld e,e | ld e,h | ld e,l | ld e,(hl) | ld e,a |
| 6 | ld h,b | ld h,c | ld h,d | ld h,e | ld h,h | ld h,l | ld h,(hl) | ld h,a | ld l,b | ld l,c | ld l,d | ld l,e | ld l,h | ld l,l | ld l,(hl) | ld l,a |
| 7 | ld (hl),b | ld (hl),c | ld (hl),d | ld (hl),e | ld (hl),h | ld (hl),l | halt | ld (hl),a | ld a,b | ld a,c | ld a,d | ld a,e | ld a,h | ld a,l | ld a,(hl) | ld a,a |
| 8 | add a,b | add a,c | add a,d | add a,e | add a,h | add a,l | add a,(hl) | add a,a | adc a,b | adc a,c | adc a,d | adc a,e | adc a,h | adc a,l | adc a,(hl) | adc a,a |
| 9 | sub b | sub c | sub d | sub e | sub h | sub l | sub (hl) | sub a | sbc a,b | sbc a,c | sbc a,d | sbc a,e | sbc a,h | sbc a,l | sbc a,(hl) | sbc a,a |
| A | and b | and c | and d | and e | and h | and l | and (hl) | and a | xor b | xor c | xor d | xor e | xor h | xor l | xor (hl) | xor a |
| B | or b | or c | or d | or e | or h | or l | or (hl) | or a | cp b | cp c | cp d | cp e | cp h | cp l | cp (hl) | cp a |
| C | ret nz | pop bc | jp nz,xx | jp xx | call nz,xx | push bc | add a,x | rst 00h | ret z | ret | jp z,xx | CB | call z,xx | call xx | adc a,x | rst 08h |
| D | ret nc | pop de | jp nc,xx | out (x),a | call nc,xx | push de | sub x | rst 10h | ret c | exx | jp c,xx | in a,(x) | call c,xx | DD (IX) | sbc a,x | rst 18h |
| E | ret po | pop hl | jp po,xx | ex (sp),hl | call po,xx | push hl | and x | rst 20h | ret pe | jp (hl) | jp pe,xx | ex de,hl | call pe,xx | ED | xor x | rst 28h |
| F | ret p | pop af | jp p,xx | di | call p,xx | push af | or x | rst 30h | ret m | ld sp,hl | jp m,xx | ei | call m,xx | FD (IY) | cp x | rst 38h |

Z80 Opcode table with a prefix byte CB

| CB | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | A | B | C | D | E | F |
|----|---------|---------|---------|---------|---------|---------|------------|---------|---------|---------|---------|---------|---------|---------|------------|---------|
| 0 | rlc b | rlc c | rlc d | rlc e | rlc h | rlc l | rlc (hl) | rlc a | rrc b | rrc c | rrc d | rrc e | rrc h | rrc l | rrc (hl) | rrc a |
| 1 | rl b | rl c | rl d | rl e | rl h | rl l | rl (hl) | rl a | rr b | rr c | rr d | rr e | rr h | rr l | rr (hl) | rr a |
| 2 | sla b | sla c | sla d | sla e | sla h | sla l | sla (hl) | sla a | sra b | sra c | sra d | sra e | sra h | sra l | sra (hl) | sra a |
| 3 | sll b | sll c | sll d | sll e | sll h | sll l | sll (hl) | sll a | srl b | srl c | srl d | srl e | srl h | srl l | srl (hl) | srl a |
| 4 | bit 0,b | bit 0,c | bit 0,d | bit 0,e | bit 0,h | bit 0,l | bit 0,(hl) | bit 0,a | bit 1,b | bit 1,c | bit 1,d | bit 1,e | bit 1,h | bit 1,l | bit 1,(hl) | bit 1,a |
| 5 | bit 2,b | bit 2,c | bit 2,d | bit 2,e | bit 2,h | bit 2,l | bit 2,(hl) | bit 2,a | bit 3,b | bit 3,c | bit 3,d | bit 3,e | bit 3,h | bit 3,l | bit 3,(hl) | bit 3,a |
| 6 | bit 4,b | bit 4,c | bit 4,d | bit 4,e | bit 4,h | bit 4,l | bit 4,(hl) | bit 4,a | bit 5,b | bit 5,c | bit 5,d | bit 5,e | bit 5,h | bit 5,l | bit 5,(hl) | bit 5,a |
| 7 | bit 6,b | bit 6,c | bit 6,d | bit 6,e | bit 6,h | bit 6,l | bit 6,(hl) | bit 6,a | bit 7,b | bit 7,c | bit 7,d | bit 7,e | bit 7,h | bit 7,l | bit 7,(hl) | bit 7,a |
| 8 | res 0,b | res 0,c | res 0,d | res 0,e | res 0,h | res 0,l | res 0,(hl) | res 0,a | res 1,b | res 1,c | res 1,d | res 1,e | res 1,h | res 1,l | res 1,(hl) | res 1,a |
| 9 | res 2,b | res 2,c | res 2,d | res 2,e | res 2,h | res 2,l | res 2,(hl) | res 2,a | res 3,b | res 3,c | res 3,d | res 3,e | res 3,h | res 3,l | res 3,(hl) | res 3,a |
| A | res 4,b | res 4,c | res 4,d | res 4,e | res 4,h | res 4,l | res 4,(hl) | res 4,a | res 5,b | res 5,c | res 5,d | res 5,e | res 5,h | res 5,l | res 5,(hl) | res 5,a |
| B | res 6,b | res 6,c | res 6,d | res 6,e | res 6,h | res 6,l | res 6,(hl) | res 6,a | res 7,b | res 7,c | res 7,d | res 7,e | res 7,h | res 7,l | res 7,(hl) | res 7,a |
| C | set 0,b | set 0,c | set 0,d | set 0,e | set 0,h | set 0,l | set 0,(hl) | set 0,a | set 1,b | set 1,c | set 1,d | set 1,e | set 1,h | set 1,l | set 1,(hl) | set 1,a |
| D | set 2,b | set 2,c | set 2,d | set 2,e | set 2,h | set 2,l | set 2,(hl) | set 2,a | set 3,b | set 3,c | set 3,d | set 3,e | set 3,h | set 3,l | set 3,(hl) | set 3,a |
| E | set 4,b | set 4,c | set 4,d | set 4,e | set 4,h | set 4,l | set 4,(hl) | set 4,a | set 5,b | set 5,c | set 5,d | set 5,e | set 5,h | set 5,l | set 5,(hl) | set 5,a |
| F | set 6,b | set 6,c | set 6,d | set 6,e | set 6,h | set 6,l | set 6,(hl) | set 6,a | set 7,b | set 7,c | set 7,d | set 7,e | set 7,h | set 7,l | set 7,(hl) | set 7,a |

Z80 Opcode table with a prefix byte **DD (IX)**. The same table also applies to **FD (IY)**

| DD | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | A | B | C | D | E | F |
|----|-------------|-------------|-------------|-------------|-------------|-------------|--------------|-------------|----------|-----------|------------|----------|------------|-----------|--------------|----------|
| 0 | | | | | | | | | | add ix,bc | | | | | | |
| 1 | | | | | | | | | | add ix,de | | | | | | |
| 2 | | ld ix,xx | ld (xx),ix | inc ix | inc ixh | dec ixh | ld ixh,x | | | add ix,ix | ld ix,(xx) | dec ix | inc ixl | dec ixl | ld ixl,x | |
| 3 | | | | | inc (ix+d) | dec (ix+d) | ld (ix+d),x | | | add ix,sp | | | | | | |
| 4 | | | | | ld b,ixh | ld b,ixl | ld b,(ix+d) | | | | | | ld c,ixh | ld c,ixl | ld c,(ix+d) | |
| 5 | | | | | ld d,ixh | ld d,ixl | ld d,(ix+d) | | | | | | ld e,ixh | ld e,ixl | ld e,(ix+d) | |
| 6 | ld ixh,b | ld ixh,c | ld ixh,d | ld ixh,e | ld ixh,ixh | ld ixh,l | ld h,(ix+d) | ld ixh,a | ld ixl,b | ld ixl,c | ld ixl,d | ld ixl,e | ld ixl,ixh | ld ixl,l | ld l,(ix+d) | ld ixl,a |
| 7 | ld (ix+d),b | ld (ix+d),c | ld (ix+d),d | ld (ix+d),e | ld (ix+d),h | ld (ix+d),l | | ld (ix+d),a | | | | | ld a,ixh | ld a,ixl | ld a,(ix+d) | |
| 8 | | | | | add a,ixh | add a,ixl | add a,(ix+d) | | | | | | adc a,ixh | adc a,ixl | adc a,(ix+d) | |
| 9 | | | | | sub ixh | sub ixl | sub (ix+d) | | | | | | sbc a,ixh | sbc a,ixl | sbc a,(ix+d) | |
| A | | | | | and ixh | and ixl | and (ix+d) | | | | | | xor ixh | xor ixl | xor (ix+d) | |
| B | | | | | or ixh | or ixl | or (ix+d) | | | | | | cp ixh | cp ixl | cp (ix+d) | |
| C | | | | | | | | | | | | | | | | |
| D | | | | | | | | | | | | | | | | |
| E | | pop ix | | ex (sp),ix | | push ix | | | | jp (ix) | | | | | | |
| F | | | | | | | | | | ld sp,ix | | | | | | |

Z80 Opcode table with a prefix byte **DD (IX) + CB**. The same table also applies to **FD (IY) + CB**.

| CB | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | A | B | C | D | E | F |
|----------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|--------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|---------------|-------------------|
| 0 | rlc (ix+d),b | rlc (ix+d),c | rlc (ix+d),d | rlc (ix+d),e | rlc (ix+d),h | rlc (ix+d),l | rlc (ix+d) | rlc (ix+d),a | rrc (ix+d),b | rrc (ix+d),c | rrc (ix+d),d | rrc (ix+d),e | rrc (ix+d),h | rrc (ix+d),l | rrc (ix+d) | rrc (ix+d),a |
| 1 | rl (ix+d),b | rl (ix+d),c | rl (ix+d),d | rl (ix+d),e | rl (ix+d),h | rl (ix+d),l | rl (ix+d) | rl (ix+d),a | rr (ix+d),b | rr (ix+d),c | rr (ix+d),d | rr (ix+d),e | rr (ix+d),h | rr (ix+d),l | rr (ix+d) | rr (ix+d),a |
| 2 | sla (ix+d),b | sla (ix+d),c | sla (ix+d),d | sla (ix+d),e | sla (ix+d),h | sla (ix+d),l | sla (ix+d) | sla (ix+d),a | sra (ix+d),b | sra (ix+d),c | sra (ix+d),d | sra (ix+d),e | sra (ix+d),h | sra (ix+d),l | sra (ix+d) | sra (ix+d),a |
| 3 | sll (ix+d),b | sll (ix+d),c | sll (ix+d),d | sll (ix+d),e | sll (ix+d),h | sll (ix+d),l | sll (ix+d) | sll (ix+d),a | srl (ix+d),b | srl (ix+d),c | srl (ix+d),d | srl (ix+d),e | srl (ix+d),h | srl (ix+d),l | srl (ix+d) | srl (ix+d),a |
| 4 | bit 0, (ix+d) | bit 0, (ix+d) | bit 0, (ix+d) | bit 0, (ix+d) | bit 0, (ix+d) | bit 0, (ix+d) | bit 0,(ix+d) | bit 0, (ix+d) | bit 1, (ix+d) | bit 1, (ix+d) | bit 1, (ix+d) | bit 1, (ix+d) | bit 1, (ix+d) | bit 1, (ix+d) | bit 1, (ix+d) | bit 1, (ix+d) |
| 5 | bit 2, (ix+d) | bit 2, (ix+d) | bit 2, (ix+d) | bit 2, (ix+d) | bit 2, (ix+d) | bit 2, (ix+d) | bit 2,(ix+d) | bit 2, (ix+d) | bit 3, (ix+d) | bit 3, (ix+d) | bit 3, (ix+d) | bit 3, (ix+d) | bit 3, (ix+d) | bit 3, (ix+d) | bit 3, (ix+d) | bit 3, (ix+d) |
| 6 | bit 4, (ix+d) | bit 4, (ix+d) | bit 4, (ix+d) | bit 4, (ix+d) | bit 4, (ix+d) | bit 4, (ix+d) | bit 4,(ix+d) | bit 4, (ix+d) | bit 5, (ix+d) | bit 5, (ix+d) | bit 5, (ix+d) | bit 5, (ix+d) | bit 5, (ix+d) | bit 5, (ix+d) | bit 5, (ix+d) | bit 5, (ix+d) |
| 7 | bit 6, (ix+d) | bit 6, (ix+d) | bit 6, (ix+d) | bit 6, (ix+d) | bit 6, (ix+d) | bit 6, (ix+d) | bit 6,(ix+d) | bit 6, (ix+d) | bit 7, (ix+d) | bit 7, (ix+d) | bit 7, (ix+d) | bit 7, (ix+d) | bit 7, (ix+d) | bit 7, (ix+d) | bit 7, (ix+d) | bit 7, (ix+d) |
| 8 | res 0,(ix+d),b | res 0,(ix+d),c | res 0,(ix+d),d | res 0,(ix+d),e | res 0,(ix+d),h | res 0,(ix+d),l | res 0,(ix+d) | res 0,(ix+d),a | res 1,(ix+d),b | res 1,(ix+d),c | res 1,(ix+d),d | res 1,(ix+d),e | res 1,(ix+d),h | res 1,(ix+d),l | res 1, (ix+d) | res 1,(ix+d),a |
| 9 | res 2,(ix+d),b | res 2,(ix+d),c | res 2,(ix+d),d | res 2,(ix+d),e | res 2,(ix+d),h | res 2,(ix+d),l | res 2,(ix+d) | res 2,(ix+d),a | res 3,(ix+d),b | res 3,(ix+d),c | res 3,(ix+d),d | res 3,(ix+d),e | res 3,(ix+d),h | res 3,(ix+d),l | res 3, (ix+d) | res 3,(ix+d),a |
| A | res 4,(ix+d),b | res 4,(ix+d),c | res 4,(ix+d),d | res 4,(ix+d),e | res 4,(ix+d),h | res 4,(ix+d),l | res 4,(ix+d) | res 4,(ix+d),a | res 5,(ix+d),b | res 5,(ix+d),c | res 5,(ix+d),d | res 5,(ix+d),e | res 5,(ix+d),h | res 5,(ix+d),l | res 5, (ix+d) | res 5,(ix+d),a |
| B | res 6,(ix+d),b | res 6,(ix+d),c | res 6,(ix+d),d | res 6,(ix+d),e | res 6,(ix+d),h | res 6,(ix+d),l | res 6,(ix+d) | res 6,(ix+d),a | res 7,(ix+d),b | res 7,(ix+d),c | res 7,(ix+d),d | res 7,(ix+d),e | res 7,(ix+d),h | res 7,(ix+d),l | res 7, (ix+d) | res 7,(ix+d),a |
| C | set 0,(ix+d),b | set 0,(ix+d),c | set 0,(ix+d),d | set 0,(ix+d),e | set 0,(ix+d),h | set 0,(ix+d),l | set 0,(ix+d) | set 0,(ix+d),a | set 1,(ix+d),b | set 1,(ix+d),c | set 1,(ix+d),d | set 1,(ix+d),e | set 1,(ix+d),h | set 1,(ix+d),l | set 1, (ix+d) | set 1,(ix+d),a |
| D | set 2,(ix+d),b | set 2,(ix+d),c | set 2,(ix+d),d | set 2,(ix+d),e | set 2,(ix+d),h | set 2,(ix+d),l | set 2,(ix+d) | set 2,(ix+d),a | set 3,(ix+d),b | set 3,(ix+d),c | set 3,(ix+d),d | set 3,(ix+d),e | set 3,(ix+d),h | set 3,(ix+d),l | set 3, (ix+d) | set 3,(ix+d),a |
| E | set 4,(ix+d),b | set 4,(ix+d),c | set 4,(ix+d),d | set 4,(ix+d),e | set 4,(ix+d),h | set 4,(ix+d),l | set 4,(ix+d) | set 4,(ix+d),a | set 5,(ix+d),b | set 5,(ix+d),c | set 5,(ix+d),d | set 5,(ix+d),e | set 5,(ix+d),h | set 5,(ix+d),l | set 5, (ix+d) | set 5,(ix+d),a |
| F | set 6,(ix+d),b | set 6,(ix+d),c | set 6,(ix+d),d | set 6,(ix+d),e | set 6,(ix+d),h | set 6,(ix+d),l | set 6,(hl) | set 6,(ix+d),a | set 7,(ix+d),b | set 7,(ix+d),c | set 7,(ix+d),d | set 7,(ix+d),e | set 7,(ix+d),h | set 7,(ix+d),l | set 7,(hl) | set 7,(ix+d),a |