MIPS16 Instructions

R-Type

- ADD add $d, $s, $t 000_rs_rt_rd_0_000 $d ← $s + $t
- SUB sub $d, $s, $t 000_rs_rt_rd_0_001 $d ← $s - $t
- SLL sll $d $t, h 000_rs_rt_rd_h_010 $d ← $t << h
- SRL srl $d $t, h 000_rs_rt_rd_h_011 $d ← $t >> h
- AND and $d, $s, $t 000_rs_rt_rd_0_100 $d ← $s & $t
- OR or $d, $s, $t 000_rs_rt_rd_0_101 $d ← $s | $t
- XOR xor $d, $s, $t 000_rs_rt_rd_0_110 $d ← $s ^ $t
- NOR nor $d, $s, $t 000_rs_rt_rd_0_111 $d ← ~($s | $t)

I-Type

- ADDI addi $t, $s, imm 001_rs_rt_iiiiiii $d ← $s + imm
- LW lw $t, offset($s) 010_rs_rt_ttttttt $t ← MEM[$s + offset]
- SW sw $t, offset($s) 011_rs_rt_ttttttt MEM[$s + offset] ← $t
- BEQ beq $s, $t, offset($s) 100_rs_rt_ttttttt if $s == $t advance_pc (offset)
  else advance_pc (1)
- ANDI andi $t, $s, imm 101_rs_rt_iiiiiii $d ← $s & imm
- ORI ori $t, $s, imm 110_rs_rt_iiiiiii $d ← $s | imm

J-Type

- J j target 111_ jjjjjjjjjjjj PC ← nPC; nPC = (PC & 0xf000) | (target)