

Arithmetic Instructions: Shift

0000000000000001000100000110000000

op

-

rt

rd

shamt

func

R-Type

6 bits

5 bits

5 bits

5 bits

5 bits

6 bits

op

func

mnemonic

description

0x0 0x0 SLL rd, rt, shamt $R[rd] = R[rt] \ll \text{shamt}$

0x0 0x2 SRL rd, rt, shamt $R[rd] = R[rt] \ggg \text{shamt}$ (zero ext.)

0x0 0x3 SRA rd, rt, shamt $R[rd] = R[rt] \gg \text{shamt}$ (sign ext.)

ex: $r8 = r4 * 64$ # SLL r8, r4, 6

$r8 = r4 \ll 6$