Base + Offset Addressing

1) R3 = [x3050]

; x3000
LEA R0 = x3050

1110 000 00100 1111

Target = x3050
PC+1 = x3001
x004F

; x3001

LDR R3 = [R0 + 0]

0110 011 000 000000

Target x3040
PC+1 = x3001
x003F

#2) [x30EE] = R5

; x3100

LEA R1 = x30EE

1110 001 11110 1101

Target: x30EE

PC+1: x3101

x FFED

; x3101

STR R5 = [R1+0] ~ [x30EE]

0111 101 001 000000

#3) [x30F3] = [x30F1] + [x30F2]

; x3000

R3 = x30F1

LEA R3

1110 011 011110000 ← Target = x30F1

PC+1 = x3001

x00F0

x3001

; R0 = [x30F1]

= [R3+0]

LDR R0 R3

0110 000 011 0000000

x3002

; R1 = [x30F2] = [x30F1+1]

= [R3+1]

LDR R1 R3

0110 001 011 0000001

x3003

) R2 = R0 + R1

0001 010 000 0 00 001

; x3004 [x30F3] = R2

STR R2 R3 +2

0111 010 011 000010