Remind:

R13 : SP R14: LR R15: PC

STR Rt, [Rn, #offset] immediate-indexed: 不影响 Rn 的值.

STR Rt, [Rn, #offset]! pre-indexed: 先调用更新

STR Rt, [Rn], #offset post-indexed

Occupied memory
Pre-update, grows up writeback.
STR R0, [sp, #-4]!
LDR R0, [sp], #4.

Empty memory
Post-update, grows up
STR R0, [SP], #-4
LDR R0, [sp, #4]!

Occupied
Pre-update- grows down
STR R0, [sp, #4]!
LDR R0, [sp], #-4.

Empty memory
Post-update, grows down
STR R0, [sp], #4
LDR R0 [sp, #-4]!

Occupied memory -> pre-index -> top item

Empty memory -> postindex -> first free empty space.

CISC processor automatically maintain the stack, while RISC have to be maintained by the programmar.

Block Move Instruction

ADR: