Sample Assembly Code - Loop

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| 0  I1 |  | ORG I 0 LD R2, @A  LD R0, @C | ;Origin of instruction memory  ;Load operand from address A to R2  ;Load counter from location C to R0 |
| I2 |  | INC R1, R0 | ;Increment R0 (counter) and store to R1 |
| I3 |  | JMP 8, Q | ;If v= 1 jump to HLT and finish the program |
| I4 |  | TSF R0, R1 | ;Transfer counter value to R0. |
| I5 |  | ADD R1, R2, | R0 ;Add R2 and R0, store in R1 |
| I6 |  | TSF R2, R1 | ;Transfer R1 (sum) to R2 |
| I7 |  | JMR -5 | ;Jump to beginning of loop |
| I8 |  | HLT | ;Halt computer |
|  |  | ORG D 0 | ;Origin of data segment |
| D0 | A: | DEC 2 | ;Decimal value 2 |
| D1 | C: | DEC 12 | ;Decimal value 12 |