

1 Instruction Format

Op-Code is 4 bits long:

1. LOAD: LD

| | | |
|---------|----------|---------|
| 000 | x | xxxx |
| Op-Code | Register | Address |
| 0-2 | 3 | 4-7 |

2. STORE: STR

| | | |
|---------|----------|---------|
| 111 | x | xxxx |
| Op-Code | Register | Address |
| 0-2 | 3 | 4-7 |

3. ADD: ADD

| | |
|---------|------------------------|
| 0010 | x |
| Op-Code | Register to store into |
| 0-3 | 4 |

4. SUBTRACT: SUB

| | |
|---------|------------------------|
| 0011 | x |
| Op-Code | Register to store into |
| 0-3 | 4 |

5. Branch equal: BEQ

| | |
|---------|---------|
| 0100 | x |
| Op-Code | Address |
| 0-3 | 4-7 |

6. Branch not equal: BNQ

| | |
|---------|---------|
| 0101 | x |
| Op-Code | Address |
| 0-3 | 4-7 |

7. PRINT: PRT

| | |
|---------|---------------------|
| 0110 | x |
| Op-Code | Register to display |
| 0-3 | 4 |

8. INPUT: INP

| | |
|---------|------------------------|
| 0111 | x |
| Op-Code | Register to store into |
| 0-3 | 4 |

9. STOP: STOP

| |
|---------|
| 1000 |
| Op-Code |
| 0-3 |

10. MULTIPLICATION: MULT

| | | |
|---------|------------------------|----------|
| 1001 | x | xxx |
| Op-Code | Register to store into | Constant |
| 0-3 | 4 | 5-7 |