# LD commands

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Instruction | Sub instruction | Register to write to (See Table 3) | Register to read from  (see table 4) | Don’t care | Const/ram address as byte |
| 000 | 000 | 0000 | 000 | 00 | 00000000 |

Table

LD: instruction mapping

|  |  |
| --- | --- |
| Assembly | Binary |
| LD A B | 000 000 |
| LD A RAM | 000 100 |
| LD RAM A | 000 110 |
| LD A CONST | 000 101 |
| CLR | 000 001 |

Table

LD: Register to write to

NB this controls EW lines and MUX 3.1

|  |  |
| --- | --- |
| Assembly | Binary |
| Write A | 1000 |
| Write B | 0100 |
| Write C | 0010 |
| Write D | 0001 |
| Write A and C | 1010 |

Table

LD: Register to read from

NB binary is encoding to set mux 1.x

|  |  |
| --- | --- |
| Assembly | Binary |
| Read From A | 010 |
| Read From B | 001 |
| Read From C | 011 |
| Read From D | 100 |

Table

Addition Commands

Logical operations

Logical Comparisons

Load PC

Misc