**CPU Registers that user can use**

|  |
| --- |
| R0 |
| R1 |
| R2 |
| R3 |
| R4 |
| R5 |
| R6 |
| R7 |
| PC |
| SP |
| FLAGS (Z,C,N,V) |

32 bit

**Instruction set register (32bit)**

Address mode

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Opcode | Rdestination | Rsource1 | Mode 0 | Rsource2 | unused |
| 6bit | 5bit | 5bit | 1bit | 5bit | 43bit |

Immediate mode

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Opcode | Rdestination | Rsource1 | Mode 1 | unused | Operand |
| 6bit | 5bit | 5bit | 1bit | 16bit | 32bit |