# Register Addresses:

0x00: M1\_CONTROL

0X01: M2\_CONTROL

0X02: M1\_POWER

0X03: M2\_POWER

0X04-0X08: M1\_ENCODER\_RAW

0X09-0X0C: M2\_ENCODER\_RAW

0X0D: M1\_RATE

0X11: M2\_RATE

# Register maps and descriptions:

**0x01: M1\_Control**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| MSB | 6 | 5 | 4 | 3 | 2 | 1 | LSB |
| RSV | RSV | (CURD) | (ENCD) | ENCE | CTRL | BRK | DIR |

DIR: Direction control, 0 is forward

BRK: Brake control. 0 brakes motor, 1 allows motor to coast (only at 0 power)

CTRL: Control type. Selects between speed (encoder ticks / **X** clock cycles) or power control (0-100%). 0 is power control, 1 is speed.

ENCE: Encoder enable. Enables or disables encoder readings. 0 is disabled, 1 is enabled

ENCD: Encoder data. Indicates true when new encoder value is available. Planned feature

CURD: Current data. Indicates true when new current sense data is available. Planned feature

RSV: Reserved for future use. Changing these values won’t have an effect

**0x02: M2\_Control**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| MSB | 6 | 5 | 4 | 3 | 2 | 1 | LSB |
| RSV | RSV | (CURD) | (ENCD) | ENCE | CTRL | BRK | DIR |

DIR: Direction control, 0 is forward

BRK: Brake control. 0 brakes motor, 1 allows motor to coast (only at 0 power)

CTRL: Control type. Selects between speed (encoder ticks / **X** clock cycles) or power control (0-100%). 0 is power control, 1 is speed.

ENCE: Encoder enable. Enables or disables encoder readings. 0 is disabled, 1 is enabled

ENCD: Encoder data. Indicates true when new encoder value is available. Planned feature

CURD: Current data. Indicates true when new current sense data is available. Planned feature

RSV: Reserved for future use. Changing these values won’t have an effect

To use EEPROM save and load features, set their respective registers to the appropriate values, then set the active register to them without any following values.

To auto-load data at startup, save the EEPROM\_LOAD register. Any values in the EEPROM\_LOAD register at startup will be auto-loaded upon power-up.