#include <Wire.h>

void setup()

{

char somedata[] = "lastminuteengineers.com"; // data to write

Wire.begin(); // initialise the connection

Serial.begin(9600);

Serial.println("Writing into memory...");

// write to EEPROM

i2c\_eeprom\_write\_page(0x57, 0, (byte \*)somedata, sizeof(somedata));

delay(100); //add a small delay

Serial.println("Memory written");

}

void loop()

{

Serial.print("Reading memory: ");

int addr=0; //first address

// access the first address from the memory

byte b = i2c\_eeprom\_read\_byte(0x57, 0);

while (b!=0)

{

Serial.print((char)b); //print content to serial port

addr++; //increase address

b = i2c\_eeprom\_read\_byte(0x57, addr); //access an address from the memory

}

Serial.println(" ");

delay(2000);

}

void i2c\_eeprom\_write\_byte( int deviceaddress, unsigned int eeaddress, byte data ) {

int rdata = data;

Wire.beginTransmission(deviceaddress);

Wire.write((int)(eeaddress >> 8)); // MSB

Wire.write((int)(eeaddress & 0xFF)); // LSB

Wire.write(rdata);

Wire.endTransmission();

}

// WARNING: address is a page address, 6-bit end will wrap around// also, data can be maximum of about 30 bytes, because the Wire library has a buffer of 32 bytesvoid i2c\_eeprom\_write\_page( int deviceaddress, unsigned int eeaddresspage, byte\* data, byte length ) {

Wire.beginTransmission(deviceaddress);

Wire.write((int)(eeaddresspage >> 8)); // MSB

Wire.write((int)(eeaddresspage & 0xFF)); // LSB

byte c;

for ( c = 0; c < length; c++)

Wire.write(data[c]);

Wire.endTransmission();

}

byte i2c\_eeprom\_read\_byte( int deviceaddress, unsigned int eeaddress ) {

byte rdata = 0xFF;

Wire.beginTransmission(deviceaddress);

Wire.write((int)(eeaddress >> 8)); // MSB

Wire.write((int)(eeaddress & 0xFF)); // LSB

Wire.endTransmission();

Wire.requestFrom(deviceaddress,1);

if (Wire.available()) rdata = Wire.read();

return rdata;

}

// maybe let's not read more than 30 or 32 bytes at a time!void i2c\_eeprom\_read\_buffer( int deviceaddress, unsigned int eeaddress, byte \*buffer, int length ) {

Wire.beginTransmission(deviceaddress);

Wire.write((int)(eeaddress >> 8)); // MSB

Wire.write((int)(eeaddress & 0xFF)); // LSB

Wire.endTransmission();

Wire.requestFrom(deviceaddress,length);

int c = 0;

for ( c = 0; c < length; c++ )

if (Wire.available()) buffer[c] = Wire.read();

}