nclude <EEPROM.h>

String ReadBuffer;

// declare the onboard LED.

int Led = 13;

int WriteValue = 0;

int WriteAddress = 0;

int ReadValue = 0;

int ReadAddress = 0;

int EndAdress = 0;

void setup()

{

// initialize serial port and assign baud rate

Serial.begin(9600);

Serial.println("");

Serial.println("Commands are Case Sensitive");

Serial.println("To use type: ");

Serial.println(" Read <Address> OR");

Serial.println(" Write <Address> <Value>");

Serial.println("");

// initialize the digital pin as an output.

pinMode(Led, OUTPUT);

// set the led to a known state, off in this case

digitalWrite(Led, LOW);

// Erase the content of the EEPROM addresses

for (int i = 0; i < EEPROM.length(); i++)

{

EEPROM.write(i, 0);

}

}

void loop ()

{

// while serial data is pending

while (Serial.available() > 0 )

{

ReadBuffer = Serial.readString();

if (ReadBuffer.startsWith("Write "))

{

digitalWrite(Led, HIGH);

EndAdress = ReadBuffer.substring(6).indexOf(" "); //get end position of address

WriteValue = ReadBuffer.substring((6 + EndAdress) + 1).toInt();

WriteAddress = ReadBuffer.substring(6, 6 + EndAdress).toInt();

Serial.print("Write Address: ");

Serial.print(WriteAddress, DEC);

Serial.print(" Value: ");

Serial.println(WriteValue, DEC);

if (WriteValue > 255)

{

EEPROM.write(WriteAddress, highByte(WriteValue));

EEPROM.write(WriteAddress + 1, lowByte(WriteValue));

}

else

{

EEPROM.write(WriteAddress, WriteValue);

}

}

else if (ReadBuffer.startsWith("Read "))

{

digitalWrite(Led, LOW);

ReadAddress = ReadBuffer.substring(5).toInt();//read from position 5 in the String

ReadValue = EEPROM.read(ReadAddress);

Serial.print("Read Address: ");

Serial.print(ReadAddress, DEC);

Serial.print(" Value: ");

Serial.println(ReadValue, DEC);

}

else

{

Serial.println("Invalid command, plesae try again");

}

}

}