README

1. Connection

ESP32	CONNECT TO
GND	GND
VCC	3.3V
GPIO4 (RX1)	AVR TX
GPIO5 (TX1)	AVR RX
GPIO1(TX0)	Debug RX
GPIO3(RX0)	Debug TX

UART 0: 9600b/s 8N1

UART 1: 9600b/s 8N1

2. Communication ESP32 ←→ AVR

ESP32 expects data from AVR in from showed below:

Sensor_Name:Sensor_*Value*

Ex. Temperature:24

Data should be transmitted with appropriate delays:

Max. 0.5Hz (once per 2 seconds)

After receiving data ESP32 sends data to http server via GET query and sends back http code to AVR UART

Ex. 200 – OK, 404 – address not found, -1 connection timeout

Every negative value means connection error (possible errors available here)

3. Communication ESP32 ←→ HTTP Server

ESP32 sends GET query with from showed below:

http://" + serverIP + ":" + serverPORT + "/update-sensor?" + type + "=" + val

After sending GET query it's waiting for server response and sends it to both UART0 and UART1.

POST query is not yet implemented.

4. Program algorithm