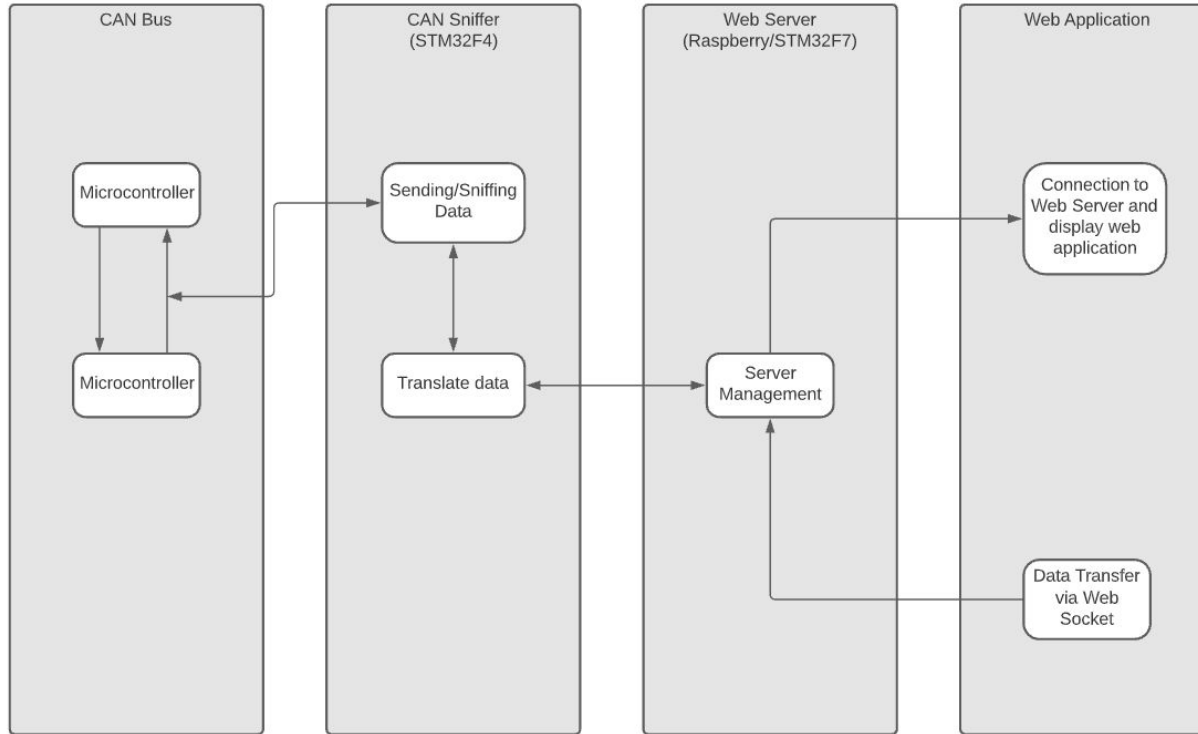


# Project 5: Embedded equipment web service communicating on CAN bus

Workflow Diagram:




**CAN**  Stop Restart ToHexadecimal

Number of data pack received : 26

Data Pack	Time	Id	Name	Dlc	Data								
					Byte 1	Byte 2	Byte 3	Byte 4	Byte 5	Byte 6	Byte 7	Byte 8	
1	0 ms	10	arbag	4	138	103	14	143	...	...	...	...	...
2	200 ms	69	freezing system	8	27	5	190	113	129	37	42	76	...
3	401 ms	98	engine	1	258	...	...	...	...	...	...	...	...
4	601 ms	126	freezing system	1	27	...	...	...	...	...	...	...	...
5	802 ms	61	freezing system	3	77	101	129	...	...	...	...	...	...
6	1003 ms	59	arbag	3	78	226	187	...	...	...	...	...	...
7	1204 ms	66	engine	3	86	77	10	...	...	...	...	...	...
8	1405 ms	21	arbag	3	217	94	179	...	...	...	...	...	...
9	1607 ms	1	engine	1	156	...	...	...	...	...	...	...	...
10	1807 ms	58	freezing system	1	47	...	...	...	...	...	...	...	...
11	2013 ms	81	freezing system	4	251	199	106	237	...	...	...	...	...
12	2215 ms	46	engine	8	122	31	81	98	196	47	14	102	...
13	2415 ms	95	freezing system	7	9	74	141	20	197	94	110	...	...
14	2617 ms	33	arbag	3	129	65	15	...	...	...	...	...	...
15	2815 ms	65	arbag	6	194	230	30	176	93	121	...	...	...
16	3014 ms	80	freezing system	1	173	...	...	...	...	...	...	...	...
17	3214 ms	65	freezing system	4	187	238	122	134	...	...	...	...	...
18	3414 ms	64	arbag	6	231	64	175	249	36	127	...	...	...
19	3614 ms	30	arbag	8	40	181	181	131	122	47	67	53	...
20	3814 ms	51	freezing system	1	200	...	...	...	...	...	...	...	...
21	4014 ms	71	arbag	7	249	88	26	163	27	180	227	...	...
22	4215 ms	33	arbag	7	192	95	202	243	146	127	201	...	...
23	4416 ms	106	engine	2	195	230	...	...	...	...	...	...	...
24	4617 ms	104	arbag	1	168	...	...	...	...	...	...	...	...
25	4817 ms	57	freezing system	2	72	41	...	...	...	...	...	...	...
26	5017 ms	111	engine	4	206	69	242	225	...	...	...	...	...


WIP:

- UI implementation to allow the web application to send data to the web server
- (IESE) Communication between the CAN sniffer and the server to send/receive data

**CAN**  Stop Restart ToDecimal

Number of data pack received : 26

Data Pack	Time	Id	Name	Dlc	Data								
					Byte 1	Byte 2	Byte 3	Byte 4	Byte 5	Byte 6	Byte 7	Byte 8	
1	0 ms	10	arbag	4	8A	67	E	8F	...	...	...	...	...
2	200 ms	69	freezing system	8	1B	5	8E	71	81	25	2A	4C	...
3	401 ms	98	engine	1	FA	...	...	...	...	...	...	...	...
4	601 ms	126	freezing system	1	1B	...	...	...	...	...	...	...	...
5	802 ms	61	freezing system	3	4D	65	81	...	...	...	...	...	...
6	1003 ms	59	arbag	3	4E	E3	BB	...	...	...	...	...	...
7	1204 ms	66	engine	3	56	4D	A	...	...	...	...	...	...
8	1405 ms	21	arbag	3	D9	5E	B3	...	...	...	...	...	...
9	1607 ms	1	engine	1	9C	...	...	...	...	...	...	...	...
10	1807 ms	58	freezing system	1	2F	...	...	...	...	...	...	...	...
11	2013 ms	81	freezing system	4	FB	C7	6A	ED	...	...	...	...	...
12	2215 ms	46	engine	8	7A	1F	51	62	C4	2F	E	66	...
13	2415 ms	95	freezing system	7	9	4A	8D	14	C5	5E	6E	...	...
14	2617 ms	33	arbag	3	81	...	...	...	...	...	...	...	...
15	2815 ms	65	arbag	6	C2	E6	1E	B0	5D	79	...	...	...
16	3014 ms	80	freezing system	1	AD	...	...	...	...	...	...	...	...
17	3214 ms	65	freezing system	4	BB	EE	7A	86	...	...	...	...	...
18	3414 ms	64	arbag	6	E7	40	AD	F9	24	7E	...	...	...
19	3614 ms	30	arbag	8	28	B3	B3	83	7A	2F	43	35	...
20	3814 ms	51	freezing system	1	C8	...	...	...	...	...	...	...	...
21	4014 ms	71	arbag	7	F9	58	24	A3	1B	B4	E3	...	...
22	4215 ms	33	arbag	7	C0	1F	CA	F3	92	7F	C9	...	...
23	4416 ms	106	engine	2	C3	E6	...	...	...	...	...	...	...
24	4617 ms	104	arbag	1	A8	...	...	...	...	...	...	...	...
25	4817 ms	57	freezing system	2	48	29	...	...	...	...	...	...	...
26	5017 ms	111	engine	4	CE	45	F2	E1	...	...	...	...	...

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## STM32F7xx Webserver Demo

### Based on the lwIP TCP/IP stack

[Home page](#)

[List of tasks](#)

## STM32 F-7 Series

The STM32 F7 devices are the world's first ARM Cortex-M7 based 32-bit microcontrollers, setting the benchmark in performance.

Taking advantage of ST's ART Accelerator as well as an L1 cache, the STM32 F7 devices deliver the maximum theoretical performance of the Cortex-M7 no matter whether code is executed from embedded Flash or external Memory: 1000 CoreMark/428 DMIPS at 200 MHz fCPU

[The STM32F7xx home page](#)



### About this demonstration

This webserver is a part of a demonstration package developed on the top level of the lwIP TCP/IP stack.

The package contains nine applications:

#### 1. Applications running in standalone (without an RTOS):

- A Webserver.
- A TFTP server.
- A TCP echo client application
- A TCP echo server application
- A UDP echo client application
- A UDP echo server application

#### 2. Applications running with FreeRTOS operating system:

- A Webserver based on netconn API.
- A Webserver based on socket API.
- A TCP/UDP echo server application based on netconn API.

### About lwIP

lwIP, pronounced lightweight IP, is an open source TCP/IP stack developed by Adam Dunkels at the Swedish Institute of Computer Science and is maintained now by a world wide community of developers.

WIP :

- Adding 2 libraries on STM32 boards allowing the use of websockets (Minnow and Mongoose)
- (IESE) Communication between the CAN sniffer and the server to send/receive data