LabManual used for FHdortmund-session Nov.2022 on how to create a FW with webServer that hosts a webpage like this  
Graphical user interface, text, application

Description automatically generated

which provides a two-way communication

1. downLink: web->phyHW: push-button on webpage to toggleLED
2. upLink: phyHW->web: continuously/dynamically read value of extPoti that simulates an analog value which could also be the engine-rpm

# TOC

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# History

v1.0: first version (SL, 31.10.22)

# first version of webserver '**L1basic\_ telnet\_0-1-?**'

to run step1 of webserver-demo

## base-prj

The base prj is <h3>\wireless\_apps\_winc1500\apps\wifi\_tcp\_server\_in\_softap

All that was not needed was removed

## Get prj from git

Get prj from git with

(dos)> cd <yourPath>

(dos: yourPath\)> git clone \  
https://github.com/stefanluethin-microchip/gh\_fhd22\_lab2\_websrv

## MPLABX

Load prj '<repo>\fhd22\_lab2\_websrv\firmware\sam\_d21\_xpro\_winc1500.X'

Graphical user interface, application, Word

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## Start MCC check that you have these settings correct

Diagram

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Graphical user interface, application

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Graphical user interface, text, application

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## download+run prj

Next download and run

Graphical user interface, application

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If all works fine, you should see 'loading completed'

## vCOM

Now open a console and connect to the vCOM and press HW-reset

Text

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You should see something like above. Now you're winc1500/webserver is ready to be connected to -> next

## Connect to winc1500

In the H3-settings you specified the SSID=Webserver so connect from your PC to it now

Graphical user interface

Description automatically generated

## telnet

once your connected to your 'Webserver' you can now connect via telnet to communicate with it via telnet.

In the H3-settings you assigned the IPaddress 192.168.1.1 to it and start tcp-port '80' so open a dos-shell (telnet comes with win10, but must be activated -> search web / alternatively you can use putty,Terraterm which include telnet-clients).

A successful connect via telnet to 192.168.1.1:80 is confirmed with the msg 'Hello, here is winc1500' -> see below screenshot

## Use webserver

Once connected you can now use the webserver - in this first version it provides these features:

* '0' to turn onboard LED0=off
* '1' to turn onboard LED0=off
* Press SW0-button and send '?' -> current button-state is reflected
* Release SW0-button and send '?' -> current button-state is reflected

A picture containing chart

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## End 'L1basic\_ telnet\_0-1-?'

Next step to follow…

# #eof