WBTC User manual

# What is the hardware ?

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| **Power Supply** |  | Flux Capacitor |
| **DE0-Nano-SOC : FPGA/HPS** | Time Circuit Display |
| **IO ports** |
| **Figure** : All of the WBTC hardware | | |

## How to use the dashboard to control the WBTC

Please ask the **demonstrator** to connect to the dashboard of the WBTC with a demonstration computer.

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| Switch the **time circuit display** *ON* or *OFF* using the Power slider.  Adjust the **brightness** by using the slider. |  |
| Configure the **Time and Date** of the system manually :  -Enter your *date and time* and press **Apply** |
| Switch the **Flux capacitor** *ON* or *OFF* using the Power slider.  Adjust the **brightness** by using the slider.  Change the animation using the **Animation** selector |
| **Figure :** How to use the dashboard to control the WBTC | |

## Configuring with the serial console

Please ask the demonstrator to connect and open the serial monitor before using the commands.

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| UARTT  Ethernet  JTAG/USB Blaster |
| **Figure :** Connectors for the network and UART console |

You can change the system parameters using the following commands.

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| Element | Action | Commands |
| Time Circuit Display | Power [on/off] the TCD | **timecircuitctl set power on**  **timecircuitctl set power off** |
| Change the TCD brightness  (i.e. 50%) | **timecircuitctl set brightness 50** |
| Flux Capacitor | Power [on/off] the FC | **fluxcapacitorctl set power on**  **fluxcapacitorctl set power off** |
| Change the animation  0=Back to the future  1=Rainbow Frenzy  2=Rainbow ZigZag | **fluxcapacitorctl set animation 0**  **fluxcapacitorctl set animation 1**  **fluxcapacitorctl set animation 2** |
| Change the FC brightness  (i.e. 50%) | **fluxcapacitorctl set brightness 50** |
| Time and Date | List timezones | **sudo timedatectl list-timezones** |
| Change timezone (i.e. Europe/Paris) | **sudo timedatectl set-timezone Europe/Paris** |
| Change date/time  (i.e. 1st of December 2020 at 20h56) | **sudo date --set=“2020-12-01 20:56”** |
| Check the status of NTP | **timedatectl show** |
| IP address | Check the current ip and mac address | **ip a** |