MicroZed™ Industrial IoT Starter Kit

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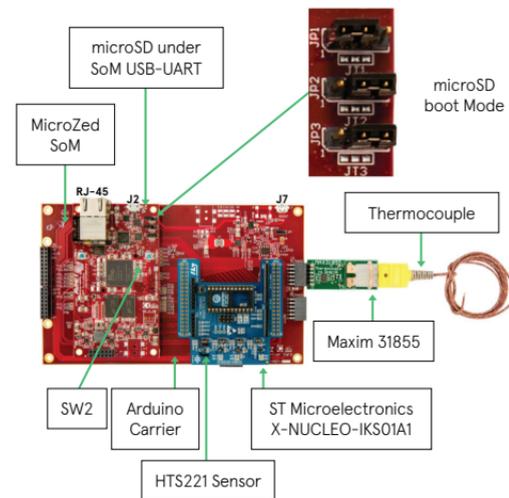
QUICK START INSTRUCTIONS

1. If not previously installed on your host system, visit www.microzed.org to download and install the Silicon Labs drivers from Avnet's CP210x USB-to-UART Setup Guide.

2. Attach the ST Micro X-NUCLEO-IKS01A1 Shield to the Arduino Carrier Card.

3. Plug the thermocouple into the Maxim 31855 Pmod and attach the assembly to the PL_PMOD connector (J3) top row at the end of the Arduino Carrier Card.

4. Insert the supplied Pulsar microSD card in the cage beneath the MicroZed SoM.

5. Attach the MicroZed SoM to the Arduino Carrier Card FMC connectors. Set the boot mode jumpers for microSD-boot as shown in the inset.

6. Plug a DHCP-Server-connected Ethernet cable to the MicroZed SoM RJ-45.

7. Connect one microUSB cable between the AC/DC power supply and Arduino power port (J7). The blue DONE LED adjacent to SW2 on the MicroZed SoM will illuminate as the board boots Wind River Pulsar Linux.

8. Connect the USB-UART port on the MicroZed SoM (J2) to a free USB port on your PC. Use the PC Device Manager to determine the COM port and set the console parameters to 115200,n,8.1. Optionally, reset the processor by pressing and releasing the RST button on the MicroZed SoM (SW2) to view the entire boot.

9. Log in at the command prompt with user/pw: **root/ incendia**. For Pulsar features and firmware upgrade, consult the Wind River Pulsar Linux Quick Start Guide included in the kit.

10. At the command prompt, type:
    ./IIot_QuickStart_Demo <uniqueID>
    (where <uniqueID> is any alphanumeric string) and press the Enter key. The application will read temperature and humidity values from the HTS221 sensor (U3) on the shield and transmit data to a public Bluemix service.

11. Use any browser-enabled device to visit: https://quickstart. internetofthings.ibmcloud.com/#/device/<uniqueID> to view a live display of the incoming data.

12. To experiment with Watson IoT and obtain your free 30-day trial of Bluemix, visit http://artofthepossibility.com/ bluemix-free-trial/ and complete the registration.

13. You can also learn more about IBM's Bluemix and Watson IoT through Avnet's on-line courses. Use the promotion code in the email confirmation of your registration above to receive free access to:
    - Building Highly Scalable Apps on the Cloud (BMA01G) - https://academy.avnet.com/us/training/ course/135613
    - Implementing Internet of Things with IBM Watson IoT

(BMA02G) - https://academy.avnet.com/us/training/ course/137757

14. To explore additional capabilities and other reference designs, visit: http://microzed.org/product/microzed-iiot-starter-kit

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