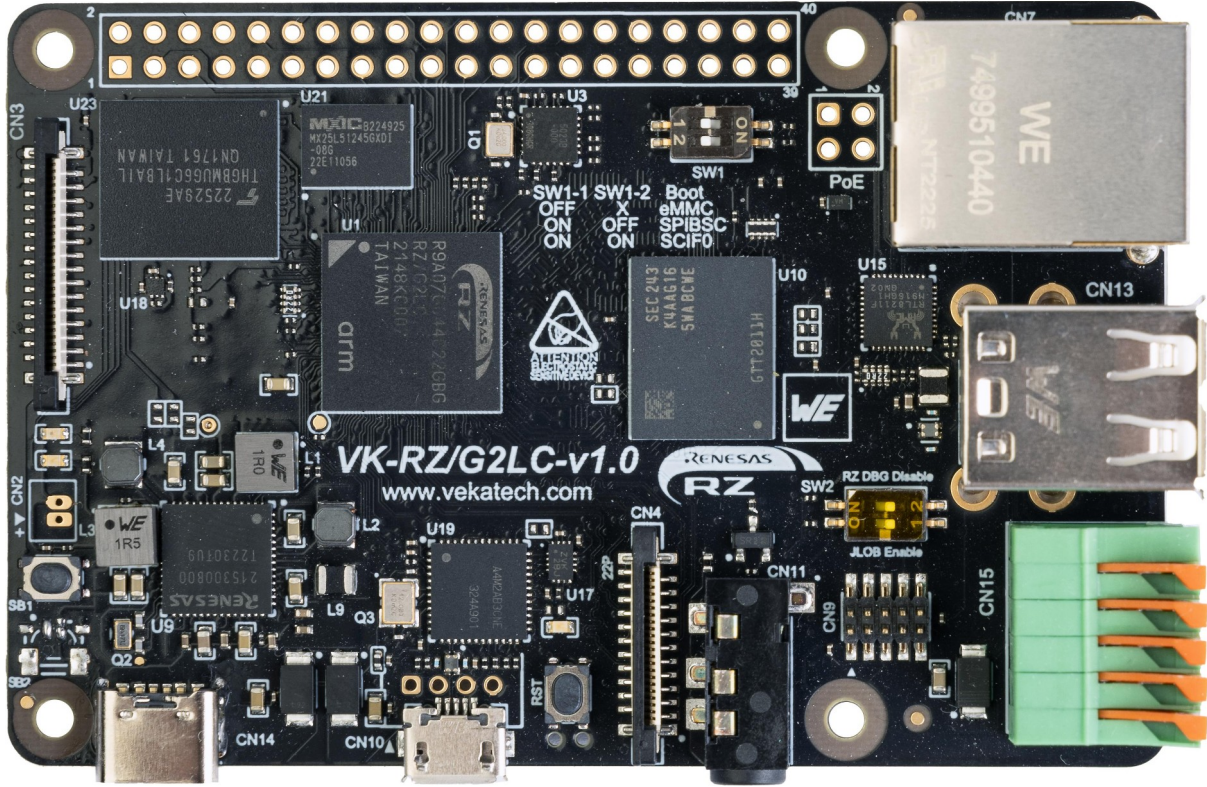


VK-RZ/G2LC Sense App



VK-RZ/G2LC v1.0 Board



Sense App

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Sense App

1. Introduction

[VK-RZ/G2LC](#) is industrial oriented board, compatible with Raspberry Pi 4 shields. It is based on [Renesas R9A07G044C22GBG](#), Dual ARM Cortex-A55 + Cortex-M33 MCU. The main purpose of this manual is to demonstrate a .NET WEB application. The program itself reads some data from a Pressure (**2511020213301**) and Accelerometer (**2536030320001**) sensors on I2C bus and makes the measured values publicly available through a server running on the localhost. The site on that server is loaded on the internet browser with the start of the board so a live data can be monitored and evaluated.

2. Guide

- Make the system to Auto login after board starts:

Open a file:

→ `sudo nano /etc/lightdm/lightdm.conf.`

Add these 2 rows at the end of the file:

→ `[SeatDefaults]`

→ `autologin-user=vkrz`

- Install WEB browser: `sudo apt-get install chromium.`

- Make that browser to Auto start after board starts:

Create a file:

→ `nano ~/.config/autostart/blah.desktop.`

Add a couple of rows:

→ `[Desktop Entry]`

→ `Type=Application`

→ `Exec=chromium --kiosk 127.0.0.1`

→ `Name=Chromium`

→ `Comment=Sense App`

- Install WEB server: `sudo apt-get install apache2.`

- Deploy the service which will feed the site with sensor data after reading the sensors:

Make a folder where the service will be located:

→ `sudo mkdir /srv/PremierVkrzAPI.`

Make that folder accessible for a regular user (from which a dotnet will be launched from)



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→ `sudo chown vkrz -R /srv/PremierVkrzAPI.`

Build the App and deploy the executable files in that folder:

→ `cd Sense/PremierVkrzAPI/premierVkrzAPI.`

→ `dotnet publish -r linux-arm64 -c Release -no-self-contained.`

→ `scp -r "bin\Release\net6.0*" vkrz@<brd IP>:/srv/PremierVkrzAPI.`

→ Make sure the output of the command `dotnet which` is the same as the beginning of the path **ExecStart** in `/srv/PremierVkrzAPI/PremierVkrzAPI.service.`

If not, modify the beginning of ExecStart, to be equal.

Create (reposition) the service.

→ `sudo cp /srv/PremierVkrzAPI/PremierVkrzAPI.service /etc/systemd/system/PremierVkrzAPI.service.`

➤ Refresh the list of available services:

→ `sudo systemctl daemon-reload.`

➤ Restart the service: `sudo systemctl restart PremierVkrzAPI.`

➤ View the log of the service and make sure it is started:

→ `sudo journalctl -u PremierVkrzAPI -f.`

→ `sudo systemctl status PremierVkrzAPI.`

➤ Make the service Auto start after board starts:

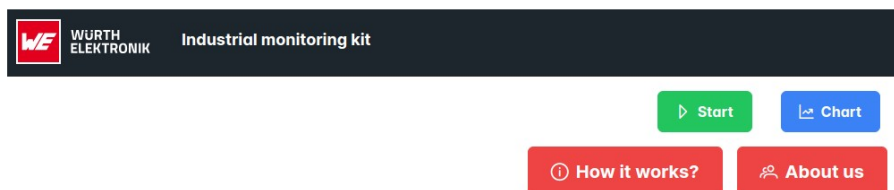
→ `sudo systemctl enable PremierVkrzAPI.`

➤ Deploy the website:

→ `scp -r "Sense/PremierVkrzAngular*" vkrz@<brd IP>:/var/www/html.`

➤ Restart the board from reset button or with a command: `sudo reboot.`

➤ The application should load the website and user can start or stop reading of the data.





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Revision overview list

Revision number	Description changes
0.1	Initial

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