```
> <u>sudo</u> cu -s 115200 -l /dev/cu.usbmodem00001
Password:
Connected.
U-Boot SPL 2021.10-wb1.7.0-gc221f7953f (Jul 26 2023 - 08:32:47
+0000)
DRAM init ok, rows:16, ncs:1, size: 1024MB
p0_{mpdgctrl0} = 0x01180112
.p0\_mpdgctrl1 = 0x0e3f0e3f

.p0\_mprddlctl = 0x3f3f3e3e

.p0\_mpwrdlctl = 0x3f3f3837
p0 mpwldectrl0 = 0x000d000d
p0 mpwldectrl1 = 0x000e000e
Trying to boot from MMC1
Warning - USDHC2 controller not supporting
U-Boot 2021.10-wb1.7.0-gc221f7953f (Jul 26 2023 - 08:32:47 +0000)
CPU:
       Freescale i.MX6ULL rev1.1 792 MHz (running at 396 MHz)
CPU:
       Industrial temperature grade (-40C to 105C) at 38C
Reset cause: POR
Model: Wiren Board rev. 6.1 (i.MX6UL)
Board: Wiren Board MX6UL
DRAM: 1 GiB
MMC: FSL_SDHC: 1
In:
      serial
Out:
       serial
Err:
       serial
Loading Environment from MMC... OK
Will only keep env vars: mmcpart bootcount upgrade available uenvcmd
wb_webupd otp_program otp_aes_program
## Info: input data size = 43 = 0x2B
bootcount=0
mmcpart=3
upgrade_available=0
Environment size: 43/8188 bytes
## Resetting to default environment
## Info: input data size = 43 = 0x2B
       Could not get PHY for FEC0: addr 0
Net:
No ethernet found.
Hit any key to stop autoboot: 0
## Info: input data size = 4285 = 0 \times 10BD
switch to partitions #0, OK
mmc1(part 0) is current device
eMMC found on device 1
Press FW button to enter firmware update mode
```

```
Checking if there is a USB storage with update file wb6_update.fit
dev: usb1_vbus @ regulator@0
starting USB...
Bus usb@2184000: USB EHCI 1.00
Bus usb@2184200: USB EHCI 1.00
scanning bus usb@2184000 for devices... 1 USB Device(s) found
scanning bus usb@2184200 for devices... EHCI timed out on TD -
token=0x80008d80
      USB device not accepting new address (error=22)
1 USB Device(s) found
       scanning usb for storage devices... 0 Storage Device(s) found
No storage devices, perhaps not 'usb start'ed..?
No USB update detected, continuing boot
Failed to load '/boot/uEnv.txt'
Running default loadzimage ...
Failed to load '/boot/zImage'
=> env default -a; setenv mmcpart 2; saveenv; reset
## Resetting to default environment
Saving Environment to MMC... Writing to MMC(1)... OK
resetting ...
U-Boot SPL 2021.10-wb1.7.0-gc221f7953f (Jul 26 2023 - 08:32:47
+0000)
DRAM init ok, rows:16, ncs:1, size: 1024MB
p0_mpdgctrl0 = 0x01150112
p0\_mpdgctrl1 = 0x0e3f0e3f

p0\_mprddlctl = 0x3f3f3e3d

p0\_mpwrdlctl = 0x3f3f3837
p0 mpwldectrl0 = 0x000d000d
p0 mpwldectrl1 = 0x000e000e
Trying to boot from MMC1
Warning - USDHC2 controller not supporting
U-Boot 2021.10-wb1.7.0-gc221f7953f (Jul 26 2023 - 08:32:47 +0000)
CPU:
       Freescale i.MX6ULL rev1.1 792 MHz (running at 396 MHz)
CPU:
       Industrial temperature grade (-40C to 105C) at 43C
Reset cause: POR
Model: Wiren Board rev. 6.1 (i.MX6UL)
Board: Wiren Board MX6UL
DRAM: 1 GiB
MMC:
       FSL_SDHC: 1
In:
       serial
Out:
       serial
Err:
       serial
Loading Environment from MMC... OK
Will only keep env vars: mmcpart bootcount upgrade_available uenvcmd
wb_webupd otp_program otp_aes_program
```

```
## Info: input data size = 43 = 0x2B
bootcount=0
mmcpart=2
upgrade_available=0
Environment size: 43/8188 bytes
## Resetting to default environment
## Info: input data size = 43 = 0x2B
       Could not get PHY for FEC0: addr 0
No ethernet found.
Hit any key to stop autoboot: 0
## Info: input data size = 4285 = 0 \times 10BD
switch to partitions #0, OK
mmc1(part 0) is current device
eMMC found on device 1
Press FW button to enter firmware update mode
......
Checking if there is a USB storage with update file wb6_update.fit
dev: usb1_vbus @ regulator@0
starting USB...
Bus usb@2184000: USB EHCI 1.00
Bus usb@2184200: USB EHCI 1.00
scanning bus usb@2184000 for devices... 1 USB Device(s) found
scanning bus usb@2184200 for devices... EHCI timed out on TD -
token=0x80008d80
      USB device not accepting new address (error=22)
1 USB Device(s) found
       scanning usb for storage devices... 0 Storage Device(s) found
No storage devices, perhaps not 'usb start'ed..?
No USB update detected, continuing boot
324 bytes read in 2 ms (158.2 KiB/s)
Importing environment from 0x82000000...
Checking if uenvcmd is set ...
Running default loadzimage ...
6304360 bytes read in 276 ms (21.8 MiB/s)
MMC read: dev # 1, block # 2016, count 32 ... 32 blocks read: OK
Reading overlays list from eMMC
Reading factory fdt name from eMMC
Loading factory fdt imx6ul-wirenboard690
47776 bytes read in 5 ms (9.1 MiB/s)
485 bytes read in 3 ms (157.2 KiB/s)
Applying DT overlay wb6-nogsm
597 bytes read in 2 ms (291 KiB/s)
Applying DT overlay wb6-wifi-rtl8723bu
509 bytes read in 3 ms (165 KiB/s)
Applying DT overlay wb6-noradio
334 bytes read in 2 ms (163.1 KiB/s)
```

```
Applying DT overlay wb6-eth1
254 bytes read in 3 ms (82 KiB/s)
Applying DT overlay temp-industrial
Applying extra overlay
Booting from mmc ...
Kernel image @ 0x82000000 [ 0x000000 - 0x603268 ]
## Flattened Device Tree blob at 83000000
   Booting using the fdt blob at 0x83000000
   Loading Device Tree to bef77000, end bef99fff ... OK
Starting kernel ...
     0.000000] Booting Linux on physical CPU 0x0
     0.000000] Linux version 5.10.35-wb151 (root@wbdevenv) (arm-
linux-gnueabihf-gcc (Debian 10.2.1-6) 10.2.1 20210110, GNU ld (GNU
Binutils for Debian) 2.35.2) #1 Wed Oct 11 10:29:38 UTC 2023
     0.000000] CPU: ARMv7 Processor [410fc075] revision 5 (ARMv7),
cr=10c53c7d
     0.000000] CPU: div instructions available: patching division
code
     0.000000] CPU: PIPT / VIPT nonaliasing data cache, VIPT
aliasing instruction cache
     0.000000] OF: fdt: Machine model: Wiren Board rev. 6.9.0
(i.MX6UL/ULL)
     0.000000] Memory policy: Data cache writeback
     0.000000] cma: Reserved 16 MiB at 0xbf000000
     0.000000] Zone ranges:
     0.0000001
                 Normal
                          [mem
0x000000080000000-0x00000000bfffffff]
     0.000000] Movable zone start for each node
     0.000000] Early memory node ranges
     0.000000]
                 node
                        0: [mem
0x000000080000000-0x00000000bfffffff]
     0.000000] Initmem setup node 0 [mem
0x0000000080000000-0x00000000bffffff1
     0.000000] CPU: All CPU(s) started in SVC mode.
     0.000000] Built 1 zonelists, mobility grouping on.
pages: 259840
     0.000000] Kernel command line: console=ttymxc0,115200 root=/
dev/mmcblk0p2 rootwait ro
     0.000000] Dentry cache hash table entries: 131072 (order: 7,
524288 bytes, linear)
     0.000000] Inode-cache hash table entries: 65536 (order: 6,
262144 bytes, linear)
     0.000000] mem auto-init: stack:off, heap alloc:off, heap
free:off
     0.000000] Memory: 1008652K/1048576K available (8192K kernel
code, 728K rwdata, 2776K rodata, 1024K init, 283K bss, 23540K
reserved, 16384K cma-reserved)
     0.000000] SLUB: HWalign=64, Order=0-3, MinObjects=0, CPUs=1,
```

```
Nodes=1
     0.000000] NR_IRQS: 16, nr_irqs: 16, preallocated irqs: 16
     0.000000] random: get random bytes called from
start kernel+0x234/0x3dc with crng init=0
     0.000000] Switching to timer-based delay loop, resolution 41ns
     0.000019] sched_clock: 32 bits at 24MHz, resolution 41ns, wraps
[
every 89478484971ns
     0.000059] clocksource: mxc_timer1: mask: 0xffffffff max_cycles:
0xffffffff, max_idle_ns: 79635851949 ns
     0.002788] Console: colour dummy device 80x30
     0.002853] Calibrating delay loop (skipped), value calculated
using timer frequency.. 48.00 BogoMIPS (lpj=240000)
     0.002892] pid max: default: 32768 minimum: 301
     0.003302] Mount-cache hash table entries: 2048 (order: 1, 8192
bytes, linear)
     0.003345] Mountpoint-cache hash table entries: 2048 (order: 1,
8192 bytes, linear)
     0.005063] CPU: Testing write buffer coherency: ok
     0.006304] Setting up static identity map for 0x80100000 -
0x80100078
     0.007315] devtmpfs: initialized
     0.025328] VFP support v0.3: implementor 41 architecture 2 part
30 variant 7 rev 5
     0.025840] clocksource: jiffies: mask: 0xffffffff max_cycles:
0xffffffff, max_idle_ns: 19112604462750000 ns
     0.025885] futex hash table entries: 256 (order: -1, 3072 bytes,
linear)
     0.027271] pinctrl core: initialized pinctrl subsystem
     0.029269] NET: Registered protocol family 16
     0.031570] DMA: preallocated 256 KiB pool for atomic coherent
allocations
     0.033585] thermal_sys: Registered thermal governor 'step_wise'
     0.033872] cpuidle: using governor menu
     0.221742] vdd1p1: supplied by regulator-dummy
[
     0.233846] vdd3p0: supplied by regulator-dummy
ſ
     0.245978] cpu: supplied by regulator-dummy
     0.258151] vddsoc: supplied by regulator-dummy
[
ſ
     0.6007041 No ATAGs?
     0.600765] hw-breakpoint: found 5 (+1 reserved) breakpoint and 4
watchpoint registers.
     0.600786] hw-breakpoint: maximum watchpoint size is 8 bytes.
     0.601391] debugfs: Directory 'dummy-iomuxc-gpr@20e4000' with
parent 'regmap' already present!
     0.602048] imx6ul-pinctrl 20e0000.pinctrl: initialized IMX
pinctrl driver
     0.603598] imx6ul-pinctrl 2290000.iomuxc-snvs: no groups defined
in /soc/bus@2200000/iomuxc-snvs@2290000
     0.603641] imx6ul-pinctrl 2290000.iomuxc-snvs: initialized IMX
pinctrl driver
     0.646410] mxs-dma 1804000.dma-apbh: initialized
```

```
[
     0.651681] SCSI subsystem initialized
     0.652162] usbcore: registered new interface driver usbfs
     0.652291] usbcore: registered new interface driver hub
ſ
     0.652427] usbcore: registered new device driver usb
     0.653265] gpio-48 (i2c_rtc): enforced open drain please flag it
properly in DT/ACPI DSDT/board file
     0.653477] gpio-49 (i2c_rtc): enforced open drain please flag it
properly in DT/ACPI DSDT/board file
     0.654807] i2c-gpio i2c_rtc: using lines 48 (SDA) and 49 (SCL)
     0.655694] gpio-76 (i2c_eeprom1): enforced open drain please
flag it properly in DT/ACPI DSDT/board file
     0.655821] gpio-67 (i2c_eeprom1): enforced open drain please
flag it properly in DT/ACPI DSDT/board file
     0.656410] i2c-gpio i2c_eeprom1: using lines 76 (SDA) and 67
(SCL)
     0.657105] gpio-70 (i2c_eeprom2): enforced open drain please
flag it properly in DT/ACPI DSDT/board file
     0.657227] gpio-71 (i2c_eeprom2): enforced open drain please
flag it properly in DT/ACPI DSDT/board file
     0.657822] i2c-qpio i2c_eeprom2: using lines 70 (SDA) and 71
(SCL)
     0.659429] gpio-30 (scl): enforced open drain please flag it
properly in DT/ACPI DSDT/board file
     0.659784] i2c i2c-1: IMX I2C adapter registered
     0.660515] mc: Linux media interface: v0.10
[
0.660624] videodev: Linux video capture interface: v2.00
     0.660753] pps_core: LinuxPPS API ver. 1 registered
     0.660774] pps_core: Software ver. 5.3.6 - Copyright 2005-2007
Rodolfo Giometti <giometti@linux.it>
     0.660828] PTP clock support registered
     0.661458] Advanced Linux Sound Architecture Driver Initialized.
ſ
     0.663673] clocksource: Switched to clocksource mxc_timer1
     0.681338] NET: Registered protocol family 2
     0.682617] tcp_listen_portaddr_hash hash table entries: 512
(order: 0, 4096 bytes, linear)
     0.682716] TCP established hash table entries: 8192 (order: 3,
32768 bytes, linear)
     0.682895] TCP bind hash table entries: 8192 (order: 3, 32768
bytes, linear)
     0.683081] TCP: Hash tables configured (established 8192 bind
8192)
     0.683307] UDP hash table entries: 512 (order: 1, 8192 bytes,
linear)
     0.683380] UDP-Lite hash table entries: 512 (order: 1, 8192
bytes, linear)
     0.683876] NET: Registered protocol family 1
     0.684815] RPC: Registered named UNIX socket transport module.
     0.684852] RPC: Registered udp transport module.
[
     0.684869] RPC: Registered tcp transport module.
     0.684887] RPC: Registered tcp NFSv4.1 backchannel transport
```

```
module.
     0.685969] hw perfevents: enabled with armv7_cortex_a7 PMU
driver, 5 counters available
     0.688774] Initialise system trusted keyrings
     0.689232] workingset: timestamp_bits=14 max_order=18
bucket order=4
     0.700910] NFS: Registering the id resolver key type
     0.700988] Key type id_resolver registered
[
     0.701009] Key type id_legacy registered
     0.936840] Key type asymmetric registered
[
     0.936880] Asymmetric key parser 'x509' registered
     0.937002] Block layer SCSI generic (bsg) driver version 0.4
loaded (major 247)
     0.937026] io scheduler mq-deadline registered
     0.937044] io scheduler kyber registered
     0.948973] imx-sdma 20ec000.sdma: Direct firmware load for imx/
sdma/sdma−imx6q.bin failed with error −2
     0.949018] imx-sdma 20ec000.sdma: external firmware not found,
using ROM firmware
     0.952912] 2020000.serial: ttymxc0 at MMIO 0x2020000 (irg = 21,
base baud = 5000000) is a IMX
     1.615974] printk: console [ttymxc0] enabled
     1.622396] 21e8000.serial: ttymxc1 at MMIO 0x21e8000 (irg = 59,
base baud = 5000000) is a IMX
     1.666355] imx_rngc 2284000.rng: Freescale RNGB registered (HW
revision 2.129)
     1.673784] random: fast init done
     1.677738] random: crng init done
[
     1.717885] brd: module loaded
     1.736158] loop: module loaded
     1.739676] at24 5-0050: supply vcc not found, using dummy
regulator
     1.751142] at24 5-0050: 256 byte 24c02 EEPROM, writable, 1
bytes/write
     1.758170] at24 6-0050: supply vcc not found, using dummy
regulator
     1.769548] at24 6-0050: 256 byte 24c02 EEPROM, writable, 1
bytes/write
     1.781966] libphy: Fixed MDIO Bus: probed
[
     1.904397] pps pps0: new PPS source ptp0
     1.910855] libphy: fec_enet_mii_bus: probed
[
     1.919650] fec 20b4000.ethernet ethFEC0: registered PHC device 0
2.044373] pps pps1: new PPS source ptp1
     2.085412] libphy: fec_enet_mii_bus: probed
ſ
     2.090701] fec 2188000.ethernet ethFEC1: registered PHC device 1
     2.097799] PPP generic driver version 2.4.2
ſ
     2.102486] ehci_hcd: USB 2.0 'Enhanced' Host Controller (EHCI)
[
Driver
[
     2.109125] ehci-mxc: Freescale On-Chip EHCI Host driver
     2.114877] usbcore: registered new interface driver usb-storage
```

```
2.121125] usbcore: registered new interface driver
usbserial_generic
     2.127796] usbserial: USB Serial support registered for generic
ſ
     2.189540] rtc-pcf8563 4-0051: registered as rtc0
     2.206393] rtc-pcf8563 4-0051: setting system clock to
2024-03-19T06:24:01 UTC (1710829441)
     2.225157] snvs rtc 20cc000.snvs:snvs-rtc-lp: registered as rtc1
     2.231595] i2c /dev entries driver
     2.238421] lm75 4-0048: supply vs not found, using dummy
regulator
     2.2500981 lm75 4-0048: hwmon0: sensor 'lm75b'
     2.370247] sdhci: Secure Digital Host Controller Interface
     2.376529] sdhci: Copyright(c) Pierre Ossman
2.380901] sdhci-pltfm: SDHCI platform and OF driver helper
     2.394935] ledtrig-cpu: registered to indicate activity on CPUs
[
     2.402695] usbcore: registered new interface driver usbhid
[
     2.408369] usbhid: USB HID core driver
     2.423634] Initializing XFRM netlink socket
Γ
     2.428087] mmc0: SDHCI controller on 2194000.mmc [2194000.mmc]
using ADMA
     2.436378] NET: Registered protocol family 10
2.444377] Segment Routing with IPv6
     2.448467] sit: IPv6, IPv4 and MPLS over IPv4 tunneling driver
[
[
     2.456543] NET: Registered protocol family 17
2.461735] Key type dns_resolver registered
     2.469955] registered taskstats version 1
ſ
     2.474732] Loading compiled—in X.509 certificates
     2.497709] imx_thermal 20c8000.anatop:tempmon: Industrial CPU
temperature grade - max:105C critical:100C passive:95C
     2.509502] of cfs init
[
     2.512096] of_cfs_init: 0K
[
     2.519929] ALSA device list:
2.522975]
               No soundcards found.
ſ
     2.526849] Waiting for root device /dev/mmcblk0p2...
ſ
     2.546714] mmc0: new DDR MMC card at address 0001
[
     2.552449] mmcblk0: mmc0:0001 8GSD4R 7.28 GiB
ſ
     2.557535 mmcblk0boot0: mmc0:0001 8GSD4R partition 1 31.9 MiB
     2.563920] mmcblk0boot1: mmc0:0001 8GSD4R partition 2 31.9 MiB
     2.570215] mmcblk0rpmb: mmc0:0001 8GSD4R partition 3 512 KiB,
chardev (245:0)
     2.580861] mmcblk0: p1 p2 p3 p4 < p5 p6 >
     2.620080] EXT4-fs (mmcblk0p2): INFO: recovery required on
readonly filesystem
     2.627474] EXT4-fs (mmcblk0p2): write access will be enabled
during recovery
     2.935897] EXT4-fs (mmcblk0p2): recovery complete
     2.941781] EXT4-fs (mmcblk0p2): mounted filesystem with ordered
data mode. Opts: (null)
     2.950054] VFS: Mounted root (ext4 filesystem) readonly on
```

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device 179:2.
     2.961509] devtmpfs: mounted
     2.966184] Freeing unused kernel memory: 1024K
ſ
     2.971037] Run /sbin/init as init process
     3.391678] systemd[1]: systemd 247.3-7+deb11u4 running in system
mode. (+PAM +AUDIT +SELINUX +IMA +APPARMOR +SMACK +SYSVINIT +UTMP
+LIBCRYPTSETUP +GCRYPT +GNUTLS +ACL +XZ +LZ4 +ZSTD +SECCOMP +BLKID
+ELFUTILS +KMOD +IDN2 -IDN +PCRE2 default-hierarchy=unified)
     3.416102] systemd[1]: Detected architecture arm.
Welcome to Debian GNU/Linux 11 (bullseye)!
     3.466204] systemd[1]: Set hostname to <WBTETEEVO-AWVJRXHQ>.
     5.152240] systemd[1]: Queued start job for default target
Graphical Interface.
     5.168132] systemd[1]: Created slice system-getty.slice.
[ OK ] Created slice system-getty.slice.
[
     5.211625] systemd[1]: Created slice system-modprobe.slice.
[
  OK ] Created slice system-modprobe.slice.
     5.257519] systemd[1]: Created slice system-
serial\x2dgetty.slice.
  OK ] Created slice system-serial\x2dgetty.slice.
     5.301120] systemd[1]: Created slice system-
systemd\x2dfsck.slice.
[ OK ] Created slice system-systemd\x2dfsck.slice.
     5.346681] systemd[1]: Created slice User and Session Slice.
   OK ] Created slice User and Session Slice.
     5.386143] systemd[1]: Started Dispatch Password Requests to
Console Directory Watch.
[ OK ] Started Dispatch Password ...ts to Console Directory Watch.
     5.424768] systemd[1]: Started Forward Password Requests to Wall
Directory Watch.
[ OK ] Started Forward Password R...uests to Wall Directory Watch.
     5.465468] systemd[1]: Condition check resulted in Arbitrary
Executable File Formats File System Automount Point being skipped.
     5.478707] systemd[1]: Reached target Local Encrypted Volumes.
[ OK ] Reached target Local Encrypted Volumes.
     5.514988] systemd[1]: Reached target Remote File Systems.
  OK ] Reached target Remote File Systems.
ſ
[
     5.554889] systemd[1]: Reached target Slices.
   OK ] Reached target Slices.
     5.587135] systemd[1]: Listening on fsck to fsckd communication
ſ
Socket.
  OK ] Listening on fsck to fsckd communication Socket.
     5.625220] systemd[1]: Listening on initctl Compatibility Named
Pipe.
[ OK ] Listening on initctl Compatibility Named Pipe.
     5.689963] systemd[1]: Condition check resulted in Journal Audit
Socket being skipped.
     5.700678] systemd[1]: Listening on Journal Socket (/dev/log).
```

```
OK ] Listening on Journal Socket (/dev/log).
[
     5.735812] systemd[1]: Listening on Journal Socket.
ſ
  OK ] Listening on Journal Socket.
     5.778400] systemd[1]: Listening on udev Control Socket.
[
OK ] Listening on udev Control Socket.
[
     5.815289] systemd[1]: Listening on udev Kernel Socket.
  OK ] Listening on udev Kernel Socket.
     5.858600] systemd[1]: Condition check resulted in Huge Pages
File System being skipped.
     5.880019] systemd[1]: Mounting POSIX Message Queue File
System...
         Mounting POSIX Message Queue File System...
     5.935625] systemd[1]: Mounting /sys/kernel/config...
ſ
         Mounting /sys/kernel/config...
ſ
     6.011872] systemd[1]: Mounting Kernel Debug File System...
         Mounting Kernel Debug File System...
     6.064898] systemd[1]: Condition check resulted in Kernel Trace
File System being skipped.
     6.089485] systemd[1]: Starting Create list of static device
nodes for the current kernel...
         Starting Create list of st…odes for the current kernel...
[
     6.151691] systemd[1]: Starting Load Kernel Module drm...
         Starting Load Kernel Module drm...
Γ
     6.202239] systemd[1]: Starting Load Kernel Module fuse...
         Starting Load Kernel Module fuse...
     6.248872] systemd[1]: Condition check resulted in Set Up
Additional Binary Formats being skipped.
     6.261389] fuse: init (API version 7.32)
     6.283556] systemd[1]: Starting File System Check on Root
Device...
         Starting File System Check on Root Device...
ſ
     6.352918] systemd[1]: Starting Journal Service...
         Starting Journal Service...
[
     6.401623] systemd[1]: Starting Load Kernel Modules...
         Starting Load Kernel Modules...
ſ
     6.454450] systemd[1]: Starting Coldplug All udev Devices...
         Starting Coldplug All udev Devices...
ſ
     6.571867] systemd[1]: Mounted POSIX Message Queue File System.
   OK ] Mounted POSIX Message Queue File System.
ſ
[
     6.635653] systemd[1]: Mounted /sys/kernel/config.
   OK ] Mounted /sys/kernel/config.
[
[
     6.655702] systemd[1]: Mounted Kernel Debug File System.
ſ
   OK ] Mounted Kernel Debug File System.
     6.687154] systemd[1]: Finished Create list of static device
nodes for the current kernel.
[ OK ] Finished Create list of st... nodes for the current kernel.
[
     6.788484] systemd[1]: modprobe@drm.service: Succeeded.
6.814325] systemd[1]: Finished Load Kernel Module drm.
[
  OK ] Finished Load Kernel Module drm.
     6.836537] systemd[1]: modprobe@fuse.service: Succeeded.
```

```
6.864164] systemd[1]: Finished Load Kernel Module fuse.
  OK ] Finished Load Kernel Module fuse.
ſ
     6.894067] systemd[1]: Finished File System Check on Root
Device.
  OK ] Finished File System Check on Root Device.
[
[
     6.950735] systemd[1]: Finished Load Kernel Modules.
  OK | Finished Load Kernel Modules.
     7.030511] systemd[1]: Mounting FUSE Control File System...
         Mounting FUSE Control File System...
     7.095054] systemd[1]: Started File System Check Daemon to
report status.
[ OK ] Started File System Check Daemon to report status.
     7.195033] systemd[1]: Starting Remount Root and Kernel File
Systems...
         Starting Remount Root and Kernel File Systems...
     7.277295] systemd[1]: Starting Apply Kernel Variables...
         Starting Apply Kernel Variables...
     7.319353] systemd[1]: Started Journal Service.
  OK ] Started Journal Service.
[
[
   OK ] Mounted FUSE Control File System.
     7.423326] EXT4-fs (mmcblk0p2): re-mounted. Opts:
discard.errors=remount-ro
[ OK ] Finished Remount Root and Kernel File Systems.
ſ
  OK ] Finished Apply Kernel Variables.
         Starting Load/Save Random Seed...
         Starting Create System Users...
  OK ] Finished Load/Save Random Seed.
  OK ] Finished Create System Users.
         Starting Create Static Device Nodes in /dev...
  OK ] Finished Coldplug All udev Devices.
ſ
  OK ] Finished Create Static Device Nodes in /dev.
[
  OK ] Reached target Local File Systems (Pre).
[
  0K
      ] Set up automount mnt-sdcard.automount.
         Starting Helper to synchronize boot up for ifupdown...
         Starting Rule-based Manage...for Device Events and Files...
  OK ] Finished Helper to synchronize boot up for ifupdown.
  OK ] Started Rule-based Manager for Device Events and Files.
[
    10.245565 Driver for 1-wire Dallas network protocol.
ſ
    10.279300] gpio-68 (onewire_w1): enforced open drain please flag
it properly in DT/ACPI DSDT/board file
    10.359190] gpio-11 (onewire_w2): enforced open drain please flag
it properly in DT/ACPI DSDT/board file
    10.513794] w1_master_driver w1_bus_master1: Attaching one wire
slave 28.00000d885de4 crc 47
    10.703821] w1_master_driver w1_bus_master2: Attaching one wire
slave 28,00000d882feb crc 8d
    11.113099] fec 20b4000.ethernet eth1: renamed from ethFEC0
[
  OK ] Found device /dev/ttymxc0.
[
    11.806007] imx_usb 2184000.usb: No over current polarity defined
    11.822432 fec 2188000.ethernet eth0: renamed from ethFEC1
```

```
11.917849] ci_hdrc ci_hdrc.0: EHCI Host Controller
[
   11.922807] ci_hdrc ci_hdrc.0: new USB bus registered, assigned
bus number 1
ſ
   12.123841] ci hdrc ci hdrc.0: USB 2.0 started, EHCI 1.00
    12.173969] usb usb1: New USB device found, idVendor=1d6b,
idProduct=0002, bcdDevice= 5.10
    12.182288] usb usb1: New USB device strings: Mfr=3, Product=2,
SerialNumber=1
   12.189571] usb usb1: Product: EHCI Host Controller
   12.194475] usb usb1: Manufacturer: Linux 5.10.35-wb151 ehci_hcd
[
ſ
   12.200490] usb usb1: SerialNumber: ci hdrc.0
   12.484694] hub 1-0:1.0: USB hub found
ſ
   12.540956] hub 1-0:1.0: 1 port detected
   12.629565] ci_hdrc ci_hdrc.1: EHCI Host Controller
[
   12.663468] ci_hdrc ci_hdrc.1: new USB bus registered, assigned
[
bus number 2
   12.813805] ci_hdrc ci_hdrc.1: USB 2.0 started, EHCI 1.00
    12.854579] usb usb2: New USB device found, idVendor=1d6b,
idProduct=0002, bcdDevice= 5.10
    12.862951] usb usb2: New USB device strings: Mfr=3, Product=2,
SerialNumber=1
   12.870254] usb usb2: Product: EHCI Host Controller
   12.875161] usb usb2: Manufacturer: Linux 5.10.35-wb151 ehci_hcd
[
12.881174] usb usb2: SerialNumber: ci hdrc.1
   12.943981] usb usb1-port1: over-current condition
[
   13.224732] hub 2-0:1.0: USB hub found
[
ſ
    13.263813] hub 2-0:1.0: 1 port detected
   13.683846] usb 2-1: new high-speed USB device number 2 using
[
ci hdrc
    13.954495] usb 2-1: New USB device found, idVendor=0424,
idProduct=2514, bcdDevice= b.b3
    13.962723] usb 2-1: New USB device strings: Mfr=0, Product=0,
SerialNumber=0
    14.114219] hub 2-1:1.0: USB hub found
ſ
    14.173811] hub 2-1:1.0: 4 ports detected
    14.543819] usb 2-1.1: new high-speed USB device number 3 using
ci_hdrc
    14.715335] usb 2-1.1: New USB device found, idVendor=0bda,
idProduct=b720, bcdDevice= 2.00
    14.723770] usb 2-1.1: New USB device strings: Mfr=1, Product=2,
SerialNumber=3
   14.731115] usb 2-1.1: Product: 802.11n WLAN Adapter
    14.736125] usb 2-1.1: Manufacturer: Realtek
[
    14.740401] usb 2-1.1: SerialNumber: 00e04c000001
[
  OK ] Found device /dev/mmcblk0p6.
   15.259625] Bluetooth: Core ver 2.22
ſ
    15.263392] NET: Registered protocol family 31
    15.267931] Bluetooth: HCI device and connection manager
initialized
   15.291292] cfg80211: Loading compiled-in X.509 certificates for
```

```
regulatory database
    15.332715] Bluetooth: HCI socket layer initialized
  OK ] Found device [ 15.344459] Bluetooth: L2CAP socket layer
initialized
/dev/mmcblk0p5.
    15.364023] Bluetooth: SCO socket layer initialized
    15.386705] cfg80211: Loaded X.509 cert 'sforshee:
00b28ddf47aef9cea7'
    15.419061] cfg80211: loaded regulatory.db is malformed or
signature is missing/invalid
    15.474399] usbcore: registered new interface driver btusb
    15.495126] Bluetooth: hci0: RTL: examining hci_ver=06
hci rev=000b lmp ver=06 lmp subver=8723
   15.505035] Bluetooth: hci0: RTL: rom_version status=0 version=1
[
    15.511104] Bluetooth: hci0: RTL: loading rtl_bt/rtl8723b_fw.bin
    15.524761] Bluetooth: hci0: RTL: loading rtl_bt/
rtl8723b config.bin
    15.531270] bluetooth hci0: Direct firmware load for rtl bt/
rtl8723b_config.bin failed with error -2
    15.543882] Bluetooth: hci0: RTL: cfg_sz -2, total sz 22496
  OK ] Listening on Load/Save RF ...itch Status /dev/rfkill Watch.
         Activating swap /dev/mmcblk0p5...
         Starting File System Check on /dev/mmcblk0p6...
[
    16.159350] RTL871X: module init start
    16.163153] RTL871X: rtl8723bu BT-Coex version =
BTC0EX20140507-4E40
         Starting Load/Save RF Kill Switch Status...
    16.245976] Adding 262140k swap on /dev/mmcblk0p5. Priority:-2
extents:1 across:262140k SSDsc
   16.376977] Bluetooth: hci0: RTL: fw version 0x0e2f9f73
[
   16.434638] RTL871X: rtw ndev init(wlan0)
[
   16.471151] RTL871X: rtw_ndev_init(wlan1)
[
   16.501489] usbcore: registered new interface driver rtl8723bu
[
   16.507466] RTL871X: module init ret=0
[
  OK ] Activated swap /dev/mmcblk0p5.
ſ
  OK ] Reached target Swap.
   16.648874] usbcore: registered new interface driver rtl8xxxu
[
Γ
  OK | Started Load/Save RF Kill Switch Status.
       ] Finished File System Check on /dev/mmcblk0p6.
ſ
  0K
        Mounting /mnt/data...
    17.837433] EXT4-fs (mmcblk0p6): mounted filesystem with ordered
data mode. Opts: discard
[ OK ] Mounted /mnt/data.
        Mounting /var/log...
  OK ] Mounted /var/log.
[ OK ] Reached target Local File Systems.
         Starting Flush Journal to Persistent Storage...
         Starting prepare mounts and symlinks to config files...
    18.164149] systemd-journald[123]: Received client request to
flush runtime journal.
```

```
18.193071] systemd-journald[123]: File /var/log/journal/
4718d444e2911fd1dead61ff62163b04/system.journal corrupted or
uncleanly shut down, renaming and replacing.
[ OK ] Finished Flush Journal to Persistent Storage.
[ OK ] Finished prepare mounts and symlinks to config files.
         Starting Create Volatile Files and Directories...
Γ
      | Finished Create Volatile Files and Directories.
  0K
         Starting Update UTMP about System Boot/Shutdown...
[
     ] Finished Update UTMP about System Boot/Shutdown.
ſ
  OK ] Reached target System Initialization.
ſ
  OK ] Started Monitor directorie... templates for wb-mqtt-serial.
] Started Daily apt download activities.
  0K
     ] Started Daily apt upgrade and clean activities.
ſ
  0K
[
     ] Started Periodic ext4 Onli...ata Check for All Filesystems.
  0K
0K
      ] Started Discard unused blocks once a week.
  OK ] Started Daily rotation of log files.
0K
      ] Started Daily Cleanup of Temporary Directories.
[
  OK ] Reached target Paths.
OK ] Reached target Timers.
OK ] Listening on Avahi mDNS/DNS-SD Stack Activation Socket.
OK ] Listening on D-Bus System Message Bus Socket.
[
  OK ] Listening on fcgiwrap Socket.
OK ] Listening on KNX Daemon (socket).
0K
     ] Reached target Sockets.
[
  OK ] Reached target Basic System.
        Starting Bluetooth service...
ſ
  OK ] Started Regular background program processing daemon.
 OK ] Started D-Bus System Message Bus.
         Starting Network Manager...
         Starting Remove Stale Onli...t4 Metadata Check Snapshots...
         Starting Initialize hardware monitoring sensors...
         Starting Authorization Manager...
         Starting User Login Management...
  OK ] Started watch config files.
         Starting Initialize Wiren Board Device Tree overlays...
  OK ] Started Generates wb-mqtt-... UI schema for wb-mqtt-confed.
         Starting Avahi mDNS/DNS-SD Stack...
         Starting WPA supplicant...
         Starting Rotate log files...
  OK ] Started Bluetooth service.
[
  OK ] Reached target Bluetooth.
[
  OK ] Started WPA supplicant.
ſ
  OK 1 Started Avahi mDNS/DNS-SD Stack.
Γ
   22.500740] Bluetooth: BNEP (Ethernet Emulation) ver 1.3
ſ
   22.506151] Bluetooth: BNEP filters: protocol multicast
   22.595536] Bluetooth: BNEP socket layer initialized
ſ
  OK ] Started Authorization Manager.
[
         Starting Modem Manager...
         Starting Hostname Service...
  OK ] Started User Login Management.
```

```
OK ] Started Modem Manager.
  OK ] Started Network Manager.
         Starting Network Manager Wait Online...
  0K
     ] Started Hostname Service.
         Starting Network Manager Script Dispatcher Service...
       ] Started Network Manager Script Dispatcher Service.
    32.633943] SMSC LAN8710/LAN8720 20b4000.ethernet-1:00: attached
PHY driver [SMSC LAN8710/LAN8720]
(mii_bus:phy_addr=20b4000.ethernet-1:00, irq=POLL)
    33.024057 SMSC LAN8710/LAN8720 20b4000.ethernet-1:01: attached
PHY driver [SMSC LAN8710/LAN8720]
(mii bus:phy addr=20b4000.ethernet-1:01, irg=POLL)
    34.804180] fec 2188000.ethernet eth0: Link is Up - 100Mbps/Full
– flow control rx/tx
    35.364145] fec 20b4000.ethernet eth1: Link is Up - 100Mbps/Full

    flow control off

    36.806417] IPv6: ADDRCONF(NETDEV CHANGE): eth0: link becomes
ready
   36.821514] IPv6: ADDRCONF(NETDEV_CHANGE): eth1: link becomes
ready
  OK ] Finished Network Manager Wait Online.
    **] (2 of 3) A start job is running for Rotate log files (38s /
no limit)
   ***] (3 of 3) A start job is running for…ice Tree overlays
(55s / 3min 15s)
    60.610110] 21f4000.serial: ttymxc4 at MMIO 0x21f4000 (irg = 225,
base baud = 5000000) is a IMX
    61.110841] 21fc000.serial: ttymxc5 at MMIO 0x21fc000 (irg = 226,
base baud = 5000000) is a IMX
[*** ] (2 of 3) A start job is running for Rotate log files (45s /
no limit)
    **] (1 of 3) A start job is running for…eck Snapshots (1min
6s / no limit)
   ***] (1 of 3) A start job is running for…eck Snapshots (1min
7s / no limit)
   74.363842] gpio-19 (wbmz2_i2c_0): enforced open drain please
flag it properly in DT/ACPI DSDT/board file
[ *** ] (2 of 3) A start job is running for Rotate log files (53s /
no limit)
      ] Finished Initialize Wiren Board Device Tree overlays.
  0K
         Starting Raise network interfaces...
  OK ] Started Network connection...rvice for Wiren Board devices.
         Starting Power on GSM modem...
         Starting KNXD Configurator for Wiren Board...
OK | Finished Raise network interfaces.
      ] Reached target Network.
  0K
         Starting dnsmasq - A light...DHCP and caching DNS server...
[ OK ] Started Glances.
         Starting Access point and ...rver for Wi-Fi and Ethernet...
```

[OK] Finished **Initialize hardware monitoring sensors.**

```
Starting KNX Daemon...
         Starting Mosquitto MQTT Broker...
         Starting Network Time Service...
         Starting OpenBSD Secure Shell server...
         Starting Permit User Sessions...
         Starting MQTT Driver for ADC...
         Starting MQTT Driver for GPIO-controlled switches...
[ OK ] Started MQTT Driver for serial devices.
[ OK ] Started Kernel 1-Wire MOTT driver for WB-HomA.
[ INFO ] Skipped dnsmasq - A lightw...t DHCP and caching DNS server.
[ INFO ] Skipped Access point and a…server for Wi-Fi and Ethernet.
[ OK ] Finished Permit User Sessions.
OK | Started Network Time Service.
[ OK ] Reached target Host and Network Name Lookups.
[ OK ] Started Getty on tty1.
         Starting A high performanc... and a reverse proxy server...
[ OK ] Started Serial Getty on ttymxc0.
  OK ] Reached target Login Prompts.
         Starting Compensation of sme-tree (with opposite sign)...
ſ
  OK ] Started KNX Daemon.
  OK ] Started OpenBSD Secure Shell server.
[
  OK ] Reached target Network is Online.
         Starting LSB: Brings up/down network automatically...
ſ
  0K
     ] Finished Compensation of s...ice-tree (with opposite sign).
  OK ] Started Mosquitto MQTT Broker.
   92.904810] process '/sbin/netplugd' started with executable
[
stack
[ OK ] Started Wiren Board modbus devices manager.
  OK ] Started one-click diagnost... generating archive with data.
[
[
  OK ] Started Wiren Board configuration editor backend.
Γ
  OK ] Started Wiren Board database logger.
[
  OK ] Started Wiren Board MQTT KNX bridge.
[
  0K
     ] Started Wiren Board journald to MQTT gateway.
         Starting Wiren Board MQTT to Modbus TCP gateway...
[ OK ] Started metrics sender..
  OK ] Started Virtual MQTT devic...r Network Manager connections.
         Starting Wiren Board MQTT to OPC UA gateway...
  OK | Started MOTT Rule engine for Wiren Board.
  OK ] Started Wiren Board firmware update service.
```

Debian GNU/Linux 11 WBTETEEVO-AWVJRXHQ ttymxc0

WBTETEEVO-AWVJRXHQ login: