105-1-Camsvr2-testing-hl-2020-2-26.odp

CTI One Corporation

Version: x0.1 (Alpha)
Date: Feb 25, 2020
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Team members:
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https://github.com/hualili/robotics-open_abb/tree/master/ai-embedded

/media/harry/easystore/backup-2020-2-15/CTI0/3proejcts/3-8-smart-tech/3-8-4-huaYuan/3-8-4-6-products/CAMSVR-3-8-4-6-1/manufacturing-camsvr3-8-4-6-1/camsvr-pack/105-testing$

Company confidential

CAMSVR2 From the Packaging Box

华源智能

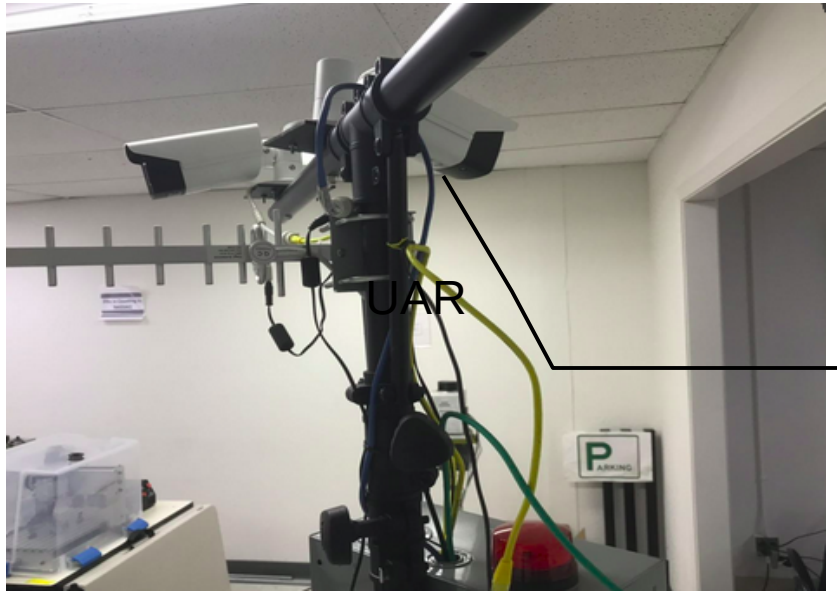
CAMSVR2

Power unit:
12V, 2 A

CAMSVR2 Testing Set Up

1 Set up CAMSVR2 and have its power cable and URAT/RS232 cable which is in CAT5 cable (ethernet cable) with RJ45 connector , we call this cable 1, this cable installed on CAMSVR2. CAMSVR2 now in the test is set as UART/RS232 client

2 Set up laptop computer (1) with putty or minicom for linux OS, hyperterminal for windows. (2) then have USB-to-serial cable, we call this cable2, and make this cable plug into laptop, which is then set as UART/RS232 host. (3) then perform loop back test of the UART/RS232 host as described in the following slides.

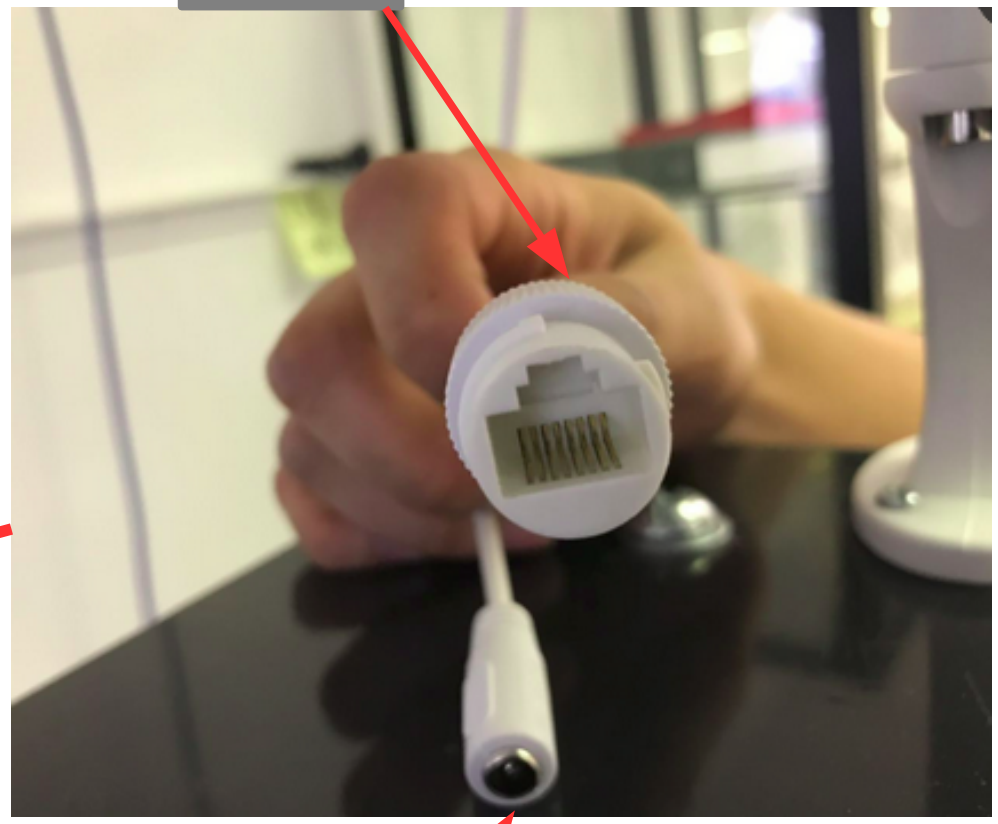


USB-to-serial cable

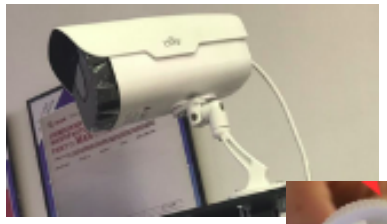
USB-to-serial cable

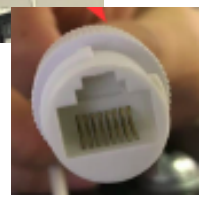
Cable 1 and 2

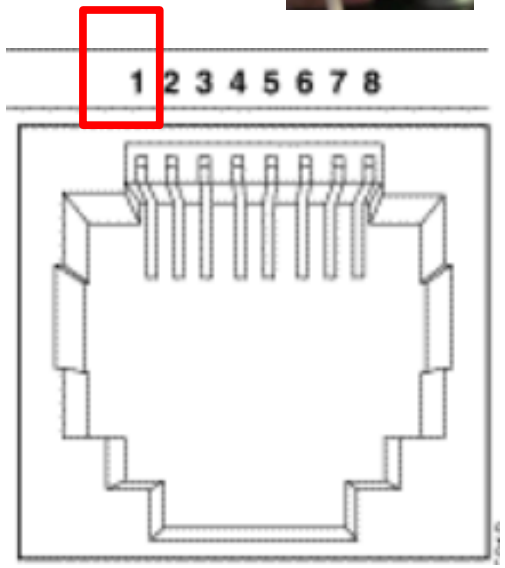
1. Set up CAMSVR2 URAT/RS232 cable is in CAT5 cable (ethernet cable) with RJ45 connector.
2. CAMSVR2 cable 2 is power cable see the figure to the right.



Pin Assignment



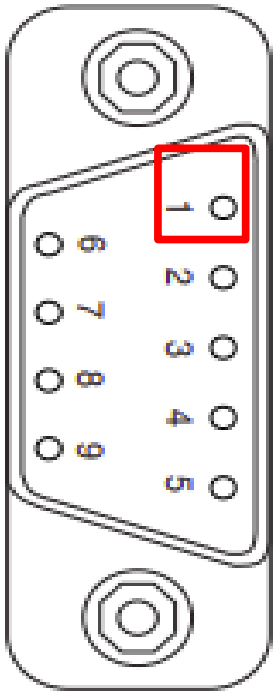




RJ45 Female Pin Connectivity

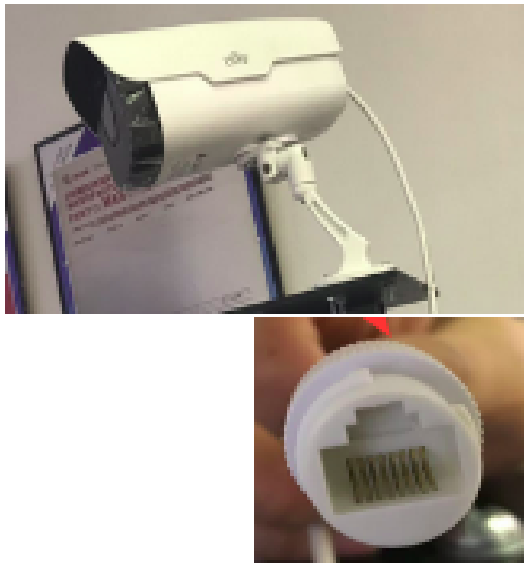
PIN
1
2
3 GND
4
5
6 TX (to Laptop Rx)
7
8 RX (from Laptop Tx)

DB9 Male Connector from USB-to-Serial Cable for Laptop connection



PIN
1
2 RX
3 TX
4
5 GND
6
7
8
9

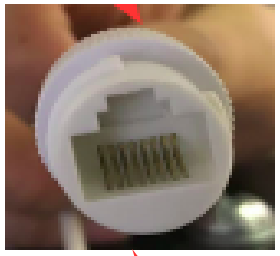
Pin Connectivity for Communication Test

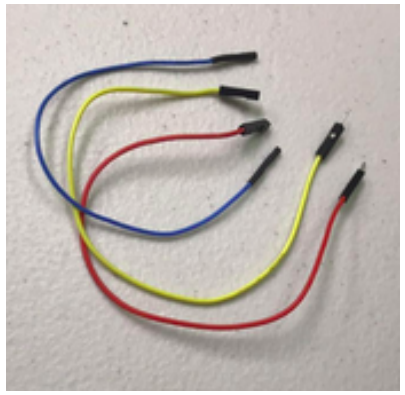


RJ45-CAMSVR2		DB9-Laptop
PIN		PIN
1		
2		
3	GND	5
4		
5		
6	TX (to Laptop Rx)	2
7		
8	RX (from Laptop Tx)	3

UART/RS232 Testing Set Up

CAMSVR-1





Laptop

RS232 Setting: (1) Start putty on the linux laptop, and set baud rate 115200, 8N1, no parity checking;
(2) then run the program on linux laptop,

CAMSVR Intrusion Detection

Step 1: Connect the hardware as shown in the previous slide.

Step 2: Plug Power adapter to CAMSVR-2.

Step 3: Run the program “Illegal_Intrusion.py” on the laptop.

Step 4: Verify if the UART connection is set up. By those message shown on Figure 1 below.

Step 5: The “Illegal_Intrusion.py” program will send back a Image received from CAMSVR-2.

Step 6: Users use mouse click to click 2 points to select a Region of Interest.

Step 7: After the Region of Interest is set, whenever there is an illegal intrusion action occur inside that region, an Illegal Intrusion Image is sent from CAMSVR-2 to host/laptop to inform users about the intrusion (as shown in Figures 3)

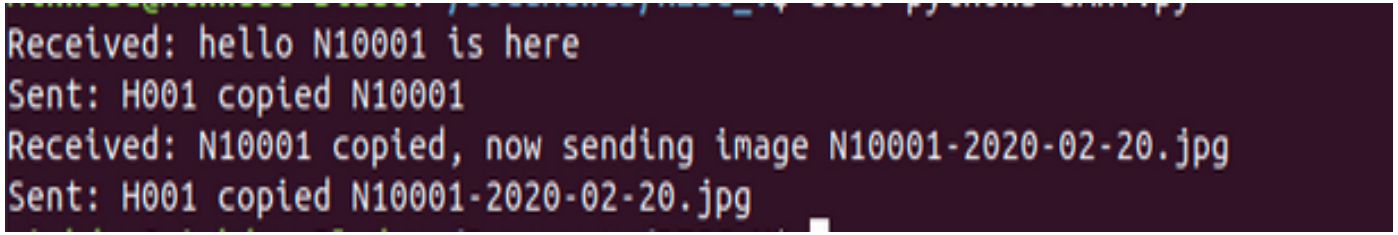


Fig1. UART Handshake Message

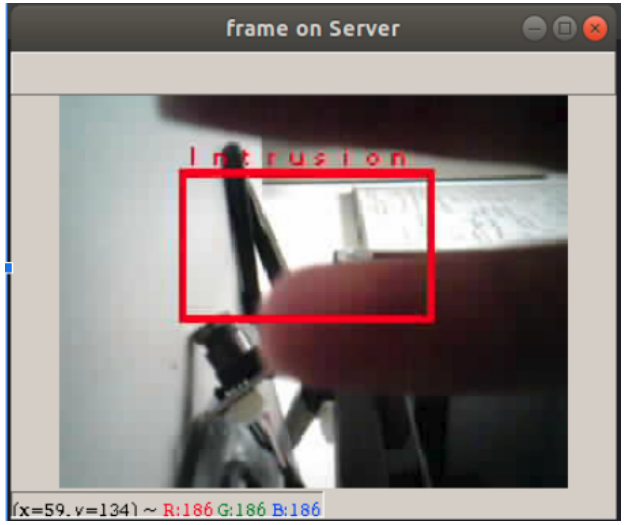


Fig2. image_received.jpg Illegal Intrusion

END