WIRIS SERIES & PIXHAWK 4 ASSEMBLE MANUAL

Works with: Workswell WIRIS series and Workswell GIS camera.

GENERAL INFORMATIONS

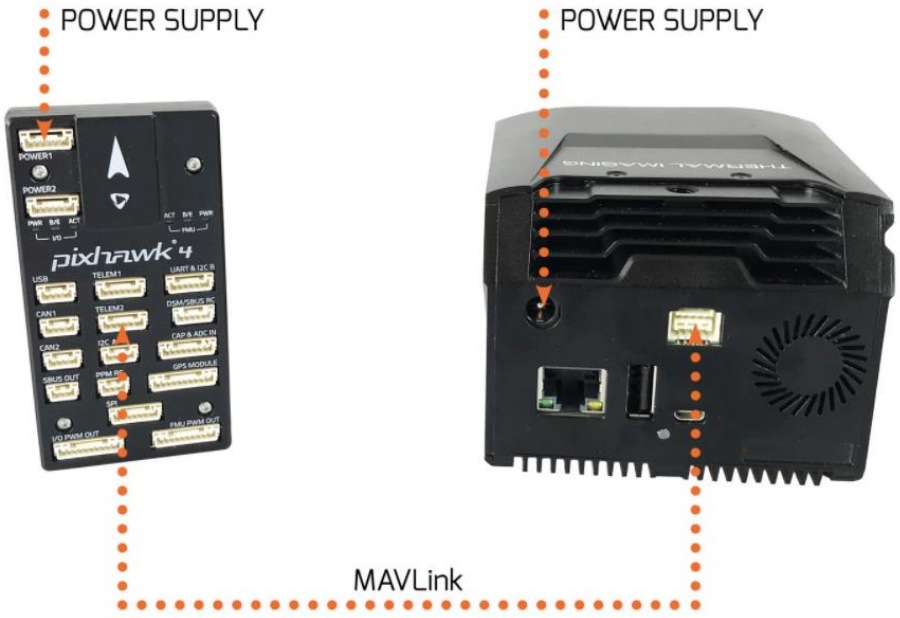
Wiris series cameras can be used as Plug&Play in Pixhawk control units with PX4 or Ardupilot software with usage of MAVLINK protocol.

If you have **Mavlink SDK** you are able to use more commands and messages – you can **find more info in the link below**.

https://www.drone-thermal-camera.com/mavlink-interface-uav-drone-infrared-camera/

Wiris PRO can be controlled through Pixhawk systems **via number of softwares for planning and executing the manual or autonomnous flight**, for example QGC.

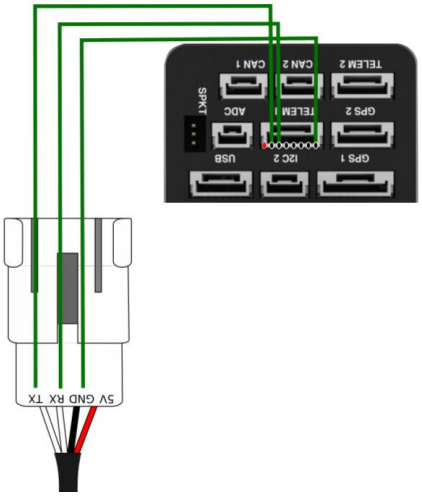
Connection scheme between Wiris PRO and Pixhawk 4 UAV control unit



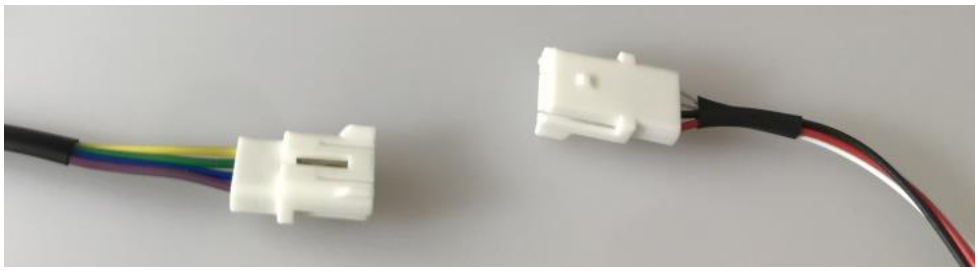
WIRIS PRO AND PIXHAWK 4 - STEP BY STEP MANUAL FOR CONNECTION

1. Connect the communication cable to „TELEM1“ connector in pixhawk and the wiring via scheme below.

Wiring scheme of Molex 4 pin connector to pixhawk „TELEM1“ 8 pin connector.



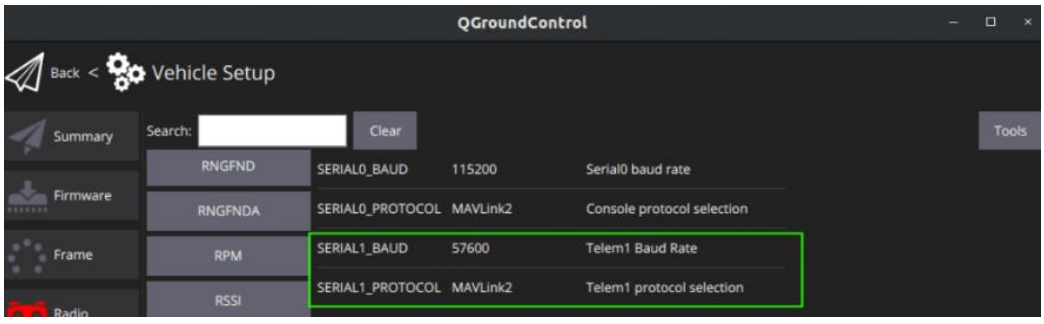
2. Connect Wiris PRO and Pixhawk unit



3. Power plug the Pixhawk 4 via USB port from PC, turn on the camera. (you can plug in the GPS module for testing if you want) **WARNING: Do not plug in the +5V wire**. Please plug in only 3 wires (Tx, Rx, GND) on the 4 pin MOLEX connector

4. 

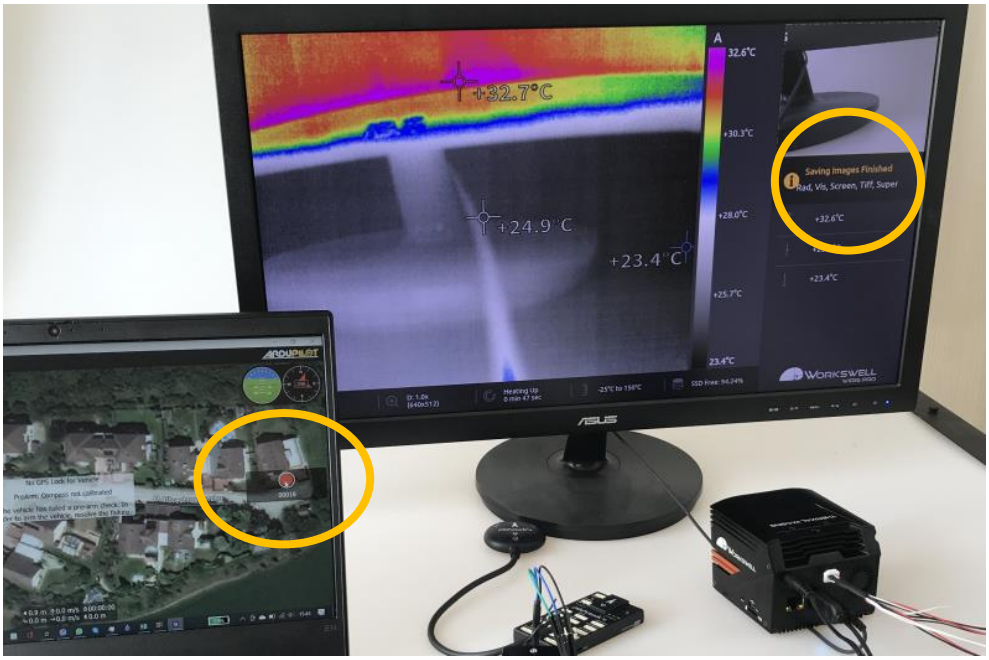
5. Set the „SERIAL1_BAUD“ on „57600“ and „SERIAL_1_PROTOCOL“ on „MAVLink2“



Q GROUND CONTROL – PIXHAWK 4 SYSTEM APPEREANCE

6. Run the Q Ground Controll on PC for tunning, pixhawk will automatically connect with PC and Wiris.

7. You can try the taking a pictures with record button for example



Examples of supported commands and messages in MAVLINK SDK are below:

- Do trigger control – enacts the trigger.
- Image start capture – starts periodic capturing or takes picture.
- Video start streaming – enables the RTSP stream.
- Storage information – information about a storage medium.
- Camera stream status – video stream status flags.
- GPS_status – the positioning status, as reported by GPS.
- Global position – the filtered global position; fused GPS and accelerometers data.

Complete informations about MAVLINK SDK for WIRIS cameras are in the following link:

https://www.drone-thermal-camera.com/mavlink-interface-uav-drone-infrared-camera/