airpixel.cz

AIR C2mmander

USER'S MANUAL

Before using this product, carefully read all product documentation and retain it for future reference.

Safety

AIR Commander has been designed with the highest concern for safety and easy handling. However, any electrical device, if used improperly, has the potential for causing fire, electrical shock or personal injury. To help ensure accident-free operation, follow these guidelines:

- Observe all warnings, precautions and instructions.
- Regularly inspect the DC power cords for damage before each usage.
- Stop use, unplug the DC power cord from the electrical outlet or battery and disconnect any other cables immediately if the device functions in an abnormal manner, produces unusual sounds or smells or becomes too hot to touch.
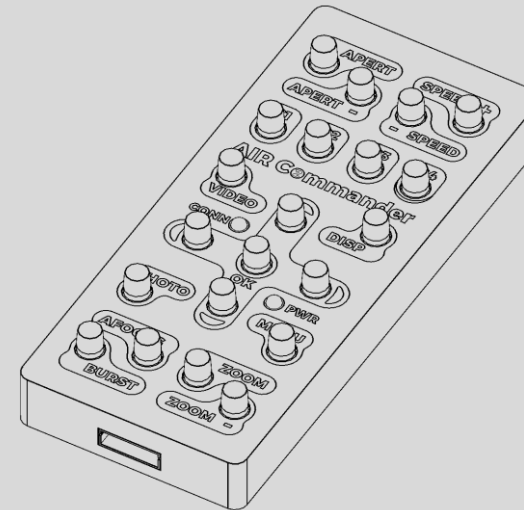
Use and handling

AIR Commander has been created for easiest handling possible, but as any other control device, can divert your attention from your drone. Please follow these guidelines for safe operation:

- Mount device into easy accessible place close to your drone controller.
- Do not allow liquid, small particles or other foreign objects to get into the system or accessories.
- Do not touch the side connector of the Smart plug.
- Do not expose the system or accessories to high temperatures, high humidity or direct sunlight.
- Keep the system and accessories, including cable ties and fasteners, out of the reach of small children.
- Follow instructions about input voltage on every part of system. Do not exceed maximum ratings.
- Never disassemble or modify the system or accessories.
- If the system is brought directly from a cold location to a warm one, moisture may condense inside the system. If this occur, the system may not operate properly. In this case, unplug all power cables immediately and leave device on dry place for several hours.
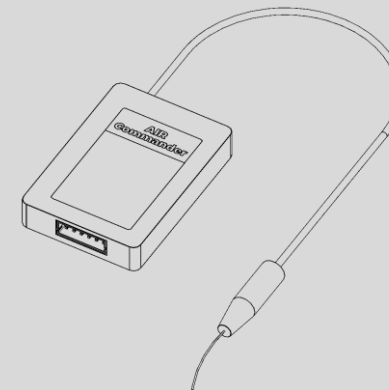
Transmitter

- 2.4 GHz band
- Anti-collision, "no-interference" protocol
- CSMA technology
- Narrow band transmission
- Input voltage 5-13V
- Maximum current consumption 80 mA
- UART controllable (PC application available at airpixel.cz)
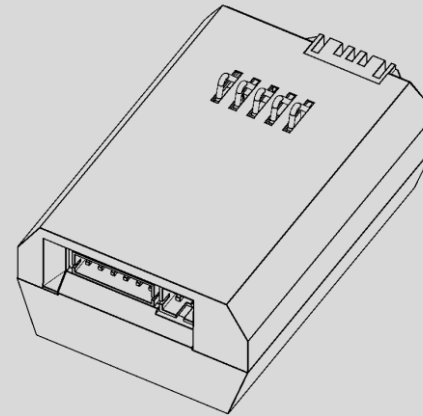- 3D printed case
- Dimensions 38 x 89 x 11 mm.

Receiver

- Range up to 1km
- Input voltage 5-13V
- Maximum current consumption 50 mA
- External high gain Antenna
- UART controllable (PC application available at airpixel.cz)
- 3D printed case
- Dimensions 25 x 35 x 7.5 mm

System

A7 Smart plug

- Integrated power source for Camera & Receiver
- Camera control functions expansion:
  - Shutter speed wheel
  - Aperture wheel
  - C1 + C2 + AF/MF buttons control
  - Direct shutter button control
- Input voltage 12V / 2A
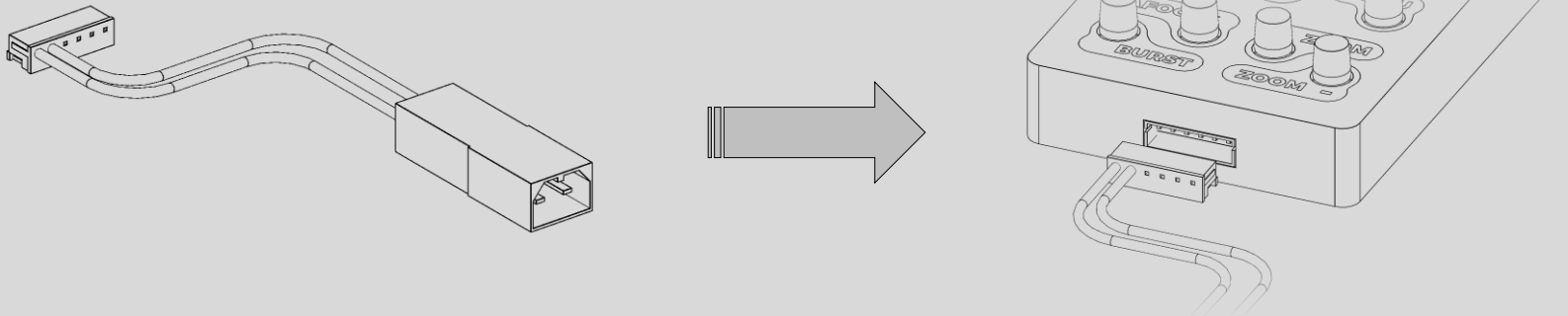- 3D printed case
- Dimensions 32 x 45 x 19 mm

System

Connection

AIR Commander is standalone system which has no communication with your drone system. System is connected only into your camera via IR transmitter and optionally via Smart plug. Only external connection is necessary for powering up each device of system. There is a lot of options how to power AIR Commander. You can use wide variety of power sources like 12V P-TAP connector, internal power of your gimbal (if accessible), external battery, USB power bank or internal USB connector of your RC transmitter / gimbal. Next steps will show the most frequent option for power up your AIR Commander system.
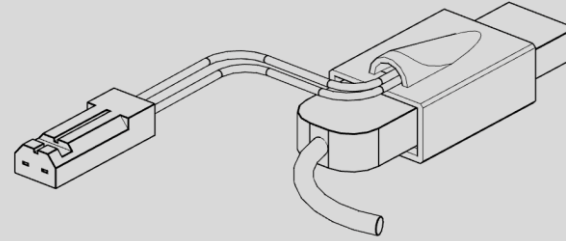
Step 1

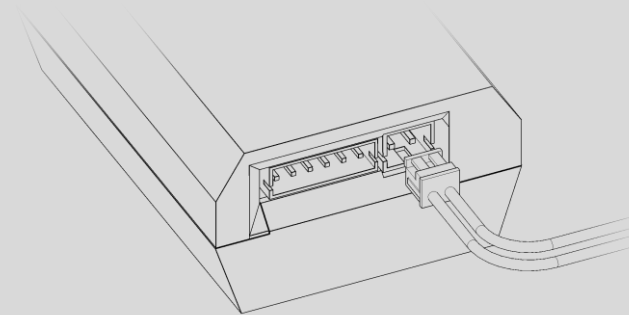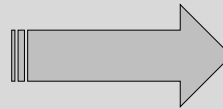Connect transmitter cable into the transmitter unit
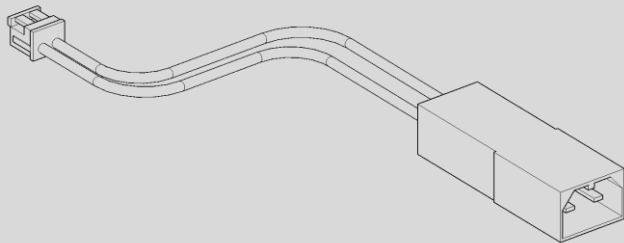

Installation

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Step 2

Connect transmitter cable into power source with 5-13V.

Use optional USB Splitter adaptor for DJI Controllers,

JST-Futaba for Graupner transmitters or custom cable for external battery or

connection. Once Transmitter is correctly powered, PWR LED will

light up constantly.

Step 3

Connect Smart plug cable into the A7 Smart plug

Step 4

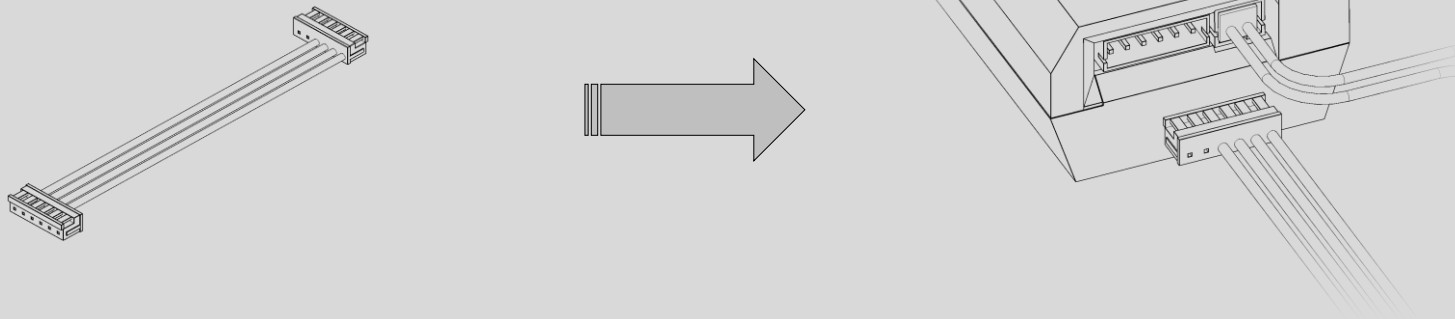Connect Smart plug cable into power source with 12V

DJI users with Ronin gimbal can use optional P-TAP cable for simple connection.

Custom made drones can use central power distribution with proper 12V BEC or gimbal battery as source.
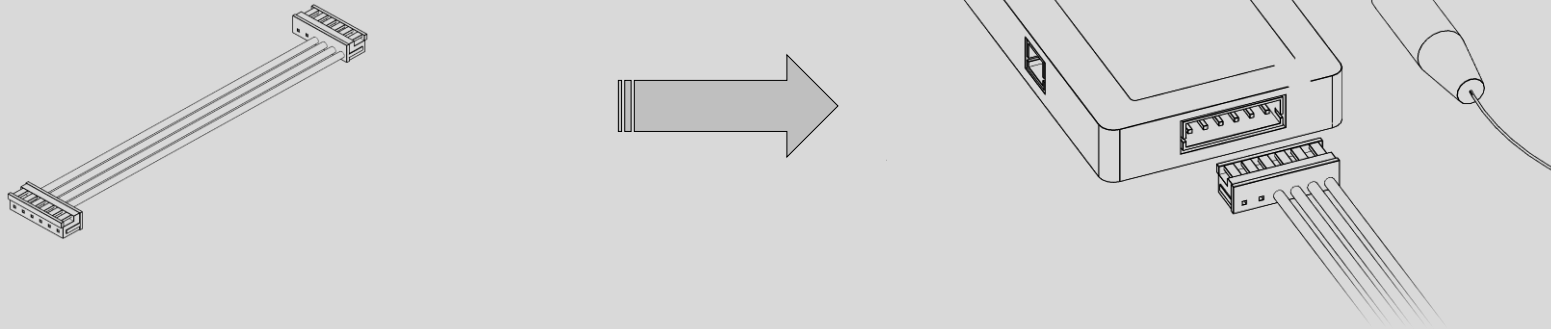
Do not exceed 12 Volts of input voltage.

Step 5

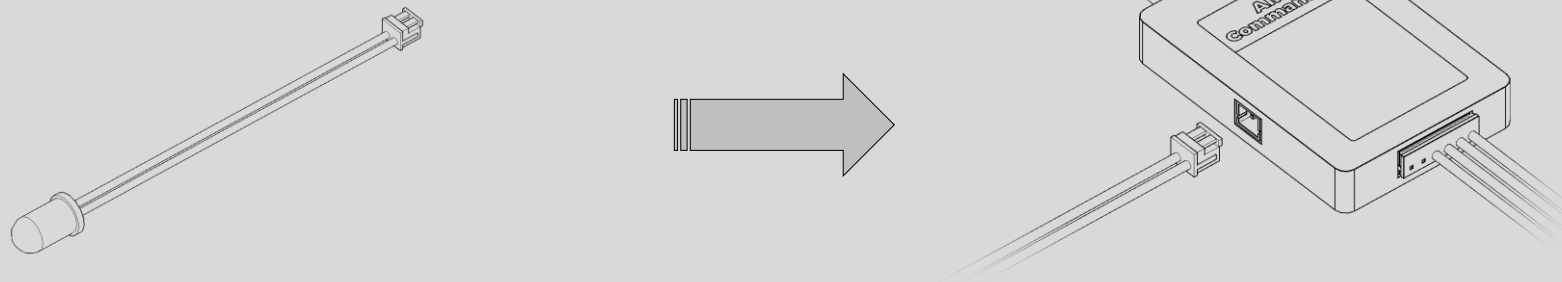Connect Receiver cable into the Smart Plug unit

Installation

Step 6

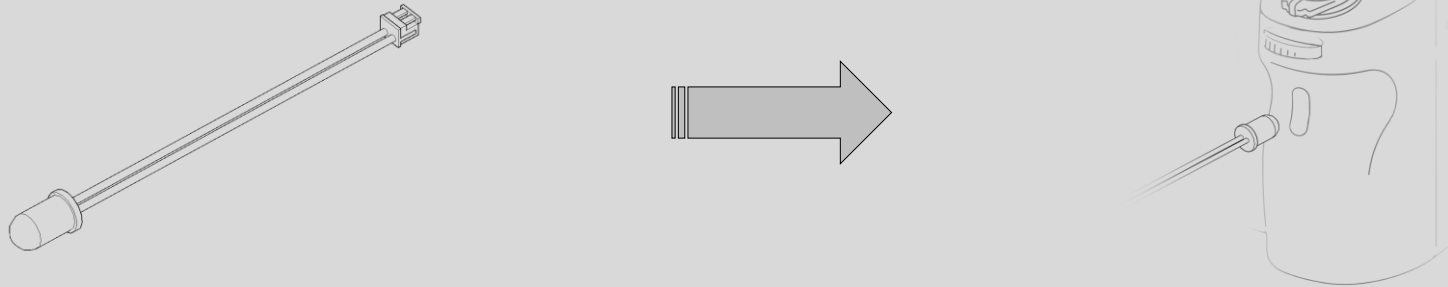Connect second end of Receiver cable into the Receiver unit

Step 7

Connect IR cable into receiver unit

Step 8

Mount LED on IR cable end close to the Camera sensor.

Step 9

Turn the "Camera control" function of your camera to "ON".

Function is available in the MENU / SETTINGS

Step 10

Turn off the Camera and remove the door of battery slot.

Remove battery and carefully insert Smart Battery plug.

Turn on all AIR Commander Power and then turn ON the Camera.

Installation

Mounting antenna

Position of antenna is most important for best range of AIR Commander.

Best position for receiving is under your gimbal, in place of your camera mount, or Gimbal horizontal motor. Place should be chosen in order of non-

interrupted visual contact with AIR Commander Transmitter. Antenna should not be mounted directly on solid metal surfaces. Especially DJI Light-Bridge

users should be careful about antenna mount. It's necessary to find a place, where AIR Commanders antenna will have „wireless shadow" from Light-Bridge

transmitting antennas. AIR Commander can perfectly coexistent with other 2.4GHz systems, anyway 2.4GHz signals transmitted on drone itself can decrease

AIR Commanders range.

Installation

Pairing

AIR Commander was designed for simple everyday work. There is no necessity to wirelessly bind Receiver & Transmitter. Each AIR Commander transmitter accepts one or more receivers which are at the time without active pairing. If you are using one AIR Commander System at once, you don't need to take care about this behavior. If you wish to use more than one AIR Commander System at on place, follow these steps:

- Turn on first AIR Commander Transmitter.
- Turn on receiver (or receivers) which should be paired with this Transmitter.
- Wait for pairing confirmation – short blinking of CONN LED on transmitter
- Turn OFF first Transmitter and keep ON paired receiver
- Turn ON second AIR Commander Transmitter
- Turn on receiver (or receivers) which should be paired with this Transmitter.
- Wait for pairing confirmation – short blinking of CONN LED on second transmitter.
- Turn back ON first Transmitter.
- Pairing is done.

Camera control

Remote control above your camera by AIR Commander is very simple. All buttons on AIR Commander Transmitter has their opposite button on the Camera with same function / name. To change camera parameter, enter MENU or navigate in the menus is simply done by pressing buttons on AIR Commander Transmitter.

Basic Usage

Signal Strength

For the best results mount the AIR Commander Transmitter & Receiver with non-interrupted visual contact. Do not mount AIR Commander Transmitter or Receiver antenna to metal surfaces. Receiver antenna should not be mounted directly on the gimbal. Best place for placing antenna was determined as few centimeters under lowest point of your gimbal. If you have optional A7 Smart plug, battery level on the screen of your camera will show the signal strength of AIR Commander. Symbol 🔋100% means full signal of AIR Commander Receiver, symbol 🔋1% means lowest signal strength.

> *Notice:*
>
> AIR Commander has non-interference protocol and most of time is radio silent. Signal strength is counted only when successful transmission is done. If no transmission is done before leaving range of AIR Commander, signal strength will remain at last transmission signal values.

Timelapse

Entering Time-lapse mode is done by long press of "TL" button on AIR Commander Transmitter. Time-lapse mode is confirmed by short blinking of PWR LED diode on Transmitter. If you have A7 Smart Plug in your system, Entering Time-lapse mode will be also confirmed as "Empty Battery symbol" 🔋 on live view of your camera. Time-lapse interval is adjusted by pressing ⊕ZOOM or ZOOM⊖ button. Currently set interval is indicated by blinking of CONN led after short press of TL button (when Time-lapse mode is enabled) and optionally on the screen of camera by battery percentage value. 1% of battery means 1 second, 2% means 2 seconds and so on. Battery value indication is available only on A7 first and second series. Photo series is started and stopped by pressing PHOTO button. All other buttons remains its native functions. If you will leave Time-lapse mode by long press of TL button, active photo series will be stopped.

Warranty

All warranty and post-warranty service provides manufacturer at www.airpixel.cz. If any malfunction or non-usual behavior occur, stop using device and contact manufacturer at info@airpixel.cz.

Manufacturer

AIRPIXEL.CZ
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Czech Republic

Made in Czech Republic

Legal