Figure 1: Alt text

Contents

Wildlife Watcher User Guide

From wildlife.ai
For Wildlife Watcher project

Setup the device

1. Setup the camera

1.1 Powering the Camera

Battery Pack Mode   Ensure the internal battery is fully charged using the USB charging cable.

AA Batteries Mode   Ensure that you use high quality powerful, lasting AA batteries for the camera to stay active for the desired number of days. (e.g. … battery will last x number of days)

Solar Mode   If using the optional solar panel, connect it to the camera and place it in a well-lit area

1.2. Camera Setup

Connect camera to a power source

- Insert AA batteries
- Open flap with battery picture on it
- Insert batteries as shown and close it
- Check that camera powers on
- Connect battery pack
- Charge battery pack using USB cable
- Open battery pack slot?

- Insert battery pack
- Check that camera powers on
- Connect solar panel
- Using USB cable - connect camera to solar battery pack
- Ensure that the solar panel is placed in a well lit area
- Check that camera powers on

Insert SD card

- Open the SD card slot
- Enter the SD card

1.3. Camera add-ons

- Optionally user can connect another camera to the camera trap if the goal is to take high resolution photos
- Users need to:
  - Plug in the additional camera via the USB port?
  - Specify which camera to use when starting deployment (see below)
  - Check if the camera is working by following the steps in 'Camera testing' section (How to test an additional camera?)

1.4. Mounting the Camera

- Choose a strategic location with a clear view of the area to be monitored
- Camera pointing to the ground
  - Use the camera stand to place the device securely facing the ground
  - Adjust the angle to cover the desired field of view.
  - Fix the wildlife platform in the camera view
  - Set up additional equipment:
    * Bait
    * other (tbc)

- Camera attached to a poll/tree
  - Use straps and mounting clasps to fix the device onto a tree trunk/poll
  - Adjust the angle
  - Set up additional equipment:
    * Bait
    * other (tbc)

2. Connect the device to the camera

3. Machine learning model management

Using Edge Impulse (see setup external tools), you can:

- View available models

- Add model to project
- Train model
- Download model

On the Mobile application (see setup mobile application), you can:

- Upload model onto the camera (that you can download from Wildlife insights)

- Go to the devices section of the mobile app
- Select a device or add a new one
- See if there is a model already loaded onto the camera
- If so, remove it
- Upload the downloaded model by selecting it from your files
- After the successful upload - see that the correct model appears on the device

If you can, test camera before deployment to ensure that the model has been deployed correctly - see Camera Testing section below

4. Testing the device

Camera testing and firmware updates Before starting deployment we recommend that the camera is tested to ensure that it works and connects properly

Users need to:

- Go into the the Devices section of the app
- See Connecting to the app section for download instructions
- Turn on the camera and Bluetooth
- See Turn on the camera section for instructions
- Select a device from the list
- Check battery level - change batteries if low
- Check SD card space - free up space if low
- Install firmware update if available
- Test camera field view preview (**in dev**)
- Test a newly loaded machine learning model (**TBC how**)

5. Usage Instructions

Motion Detection & AI Recognition

- As soon as the camera is deployed it detects motion and automatically takes pictures of wildlife activity.
- AI-powered recognition identifies species
- Users receive real-time alerts and updates via email/phone

Night Vision & Low Light Performance

- Infrared sensors enable high-quality recording in low-light conditions (?)
- The camera automatically switches to night mode when necessary. (TBC)

Storage & Data Management

- Supports microSD cards up to 128GB for local storage.
- Cloud storage options available through the companion app. (Iteration 2)
- Users can access, download, and share footage directly from the app. (Iteration 2)