VIEWHIVE INFRARED CAMERA

Operation Manual

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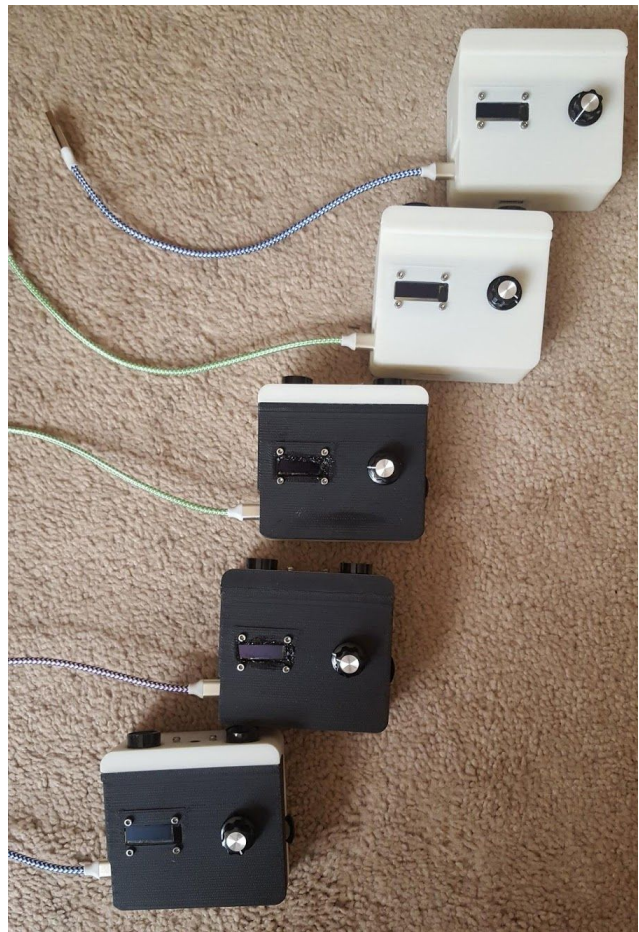damonmcc1391@gmail.com

ViewHive IR Camera

ViewHive is an automated night vision camera system to **periodically record videos** at scheduled times each day and save them to external USB flash drives. Using a Raspberry Pi computer, infrared camera, external battery power, and infrared spotlights, each recording is saved as a **H.264 video file** playable with VLC media player.

The menus are navigated with a knob by rotating and pressing it in to make selections. An OLED display shows the current date/time, menus, and inputs. After a period of inactivity (10 minutes), the camera **shuts down to conserve battery,** only starting up to record a video or after pressing the power switch. Manual recording and shutdown are also available from the main menu.

Parts

ViewHive consists of 2 major components: **Camera** and **Battery**

1) The **Camera** contains a Raspberry Pi, a Witty Pi 2 real time clock, a monochrome OLED display, an infrared camera, infrared spotlights, a USB flash drive, and a rotary encoder/push-button.

2) The **Battery** can be any 5 Volt power supply with an "Always On" feature providing at least 0.5 Amps (suggested capacity of at least 12000 mAh).
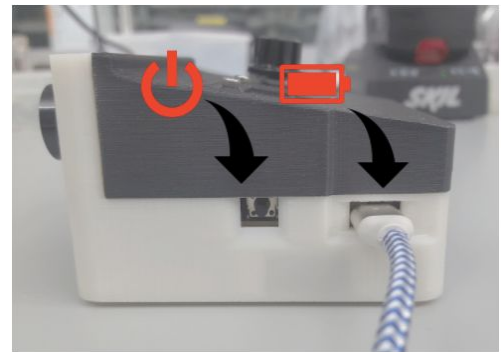
Instructions for Use

Setup Notes

➢ USB flash drive must be named VIEWHIVE and fully inserted for recordings to save.
➢ A Battery with an "Always On" feature is required to ensure Camera turns on after shutdowns.
➢ IR spotlight illumination can be confirmed by viewing through any smartphone camera (they do not contain an IR filter).
  ➢ The spotlights only turn on in low-lighting and while camera is recording.

Power

1) Ensure the camera has power by confirming the white LED on left side flashes every few seconds`
   ➢ If LED does not flash, the battery may be dead or the cord may be loose
2) Press the power button (⏻) protruding from the left side of the Camera, near the battery input port (🔋)
   ➢ A red LED will turn on
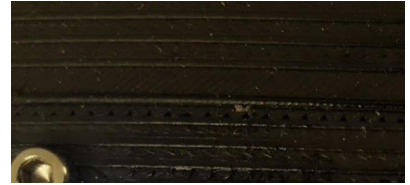3) After several seconds confirm OLED display is on

User Interface

➢ Menus are navigated by rotating and pressing the knob on the right of the screen
  ➢ All menu levels have an EXIT choice to return to a higher menu
➢ The current date and time are always displayed at the top of the screen
➢ The bar on the right represents the time remaining before auto-shutdown
  ➢ Adding events, viewing events, and recording resets the timer

RECORD Menu

Start Recording

1) Navigate to the **RECORD** menu and press to select
2) Select **START NOW**
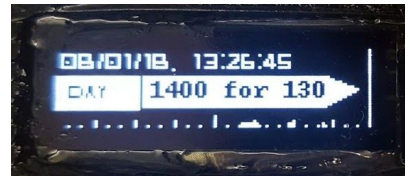   - ➢ A dot appears in the top right corner while recording

Stop Recording

1) Navigate to the **RECORD** menu and press to select
2) Select **STOP**

VIEW Menu

View Schedule

1) Navigate to the **VIEW** menu and press to select
2) If events have been scheduled, turn the Knob to view each event
3) Select **EXIT** to go back up to the main menu

ADD Menu

Add an Event to Schedule

1) Navigate to the **ADD** menu and press to select
2) Press again to **CONFIRM ADD**
3) Input desired event start time (from 0000 – 2359)
   - ➢ Use the knob to find and select each digit
   - ➢ Select **DONE** if shorter than 4 digits
4) Input desired event length (e.g. 130 for an hour and a half)
   - ➢ Use the knob to find and select each digit
   - ➢ Select **DONE** if shorter than 4 digits

CLEAR Menu

Clear Schedule

1) Navigate to the **CLEAR** menu and press to select
2) Confirm to clear schedule

VIDEOS Menu

View Saved Videos

1) Navigate to the **VIDEOS** menu and press to select
2) Choose **VIEW SAVED** and scroll through videos saved on the camera
   ➢ File name format: YYYY-MM-DD_HH.MM.SS.h264

Copy to USB

1) Select **COPY TO USB** to copy all videos saved on the camera to a VIEWHIVE flash drive
   ➢ Recordings save to USB if it was present when it ended

Delete Videos

1) Select **DELETE** to delete all videos saved on the camera