

DV-PIR motion sensor – User guide



Introduction

The DV-PIR is a passive infrared motion sensor that is designed to work with the MedeaWiz® Sprite® DV-S1 media player. The sensor will detect a warm body motion crossing its field of view and output a TTL “High” pulse. It operates on 5VDC from the Sprite’s I/O port with minimal power use and directly triggers the Sprite® with no other electronics or additional power source needed. Also the DV-PIR may be connected directly to the Hydra I/O Expander’s port 2 for more complex applications. See the Hydra user manual for details.

The range of the sensor is about 8m with an approximate 120° field of view. However these parameters can vary due to ambient conditions. For example, if the room temperature is close to body temperature, the sensor may not detect motion well.

Operation

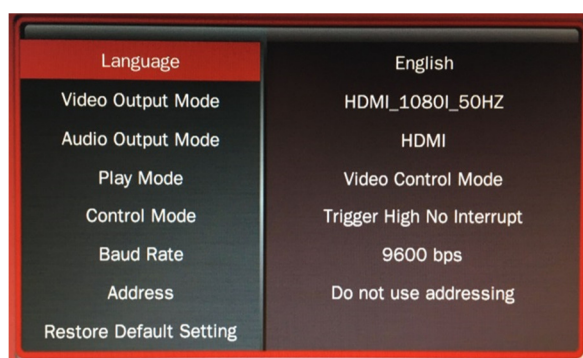
Plug the DV-PIR into the Sprite’s I/O port. Apply power to the Sprite. When first powered on, the DV-PIR sensor will need approximately 60 to 120 seconds to settle and calibrate itself to the installation and the ambient environment. During this time there may be a single random false or no trigger output. The sensor then “watches” for heat moving across its field of view. With this in mind, the sensor may not easily detect a person walking directly toward it, and is more likely to detect a person walking across its field of view. You can experiment with the sensor position and aim.

Setting up the Sprite® player with the DV-PIR sensor

Use the Sprite’s IR remote controller press SETUP and the up and down arrow keys to:

Set the Sprite’s Play Mode to: **Video Control Mode** - for video only or video + audio media files, or to: **Audio Control Mode** - for audio only media files.

Then set the Control Mode to “**Trigger High, No Interrupt**”.



Setup menu for PIR trigger of video playback.



Setup menu for PIR trigger of audio playback.

Media Files

You will need 2 files loaded onto the Sprite’s USB drive or SD memory card named 000 and 001. When power is applied the 000 file will play and loop continuously until there is a trigger event. The DV-PIR will cause a trigger event when it detects motion, and the Sprite® will play the file named 001 through to its end without interruption. Both files should be longer than 5 seconds. We recommend 30 seconds or longer for the 000 (loop or attract) file. The 000 file

can be a black video with or without audio (silent or active) or a silent audio file if you want it to be un-noticed before the trigger event. You can add some extra time or black space to the end of the 001 file as a delay to allow the person to walk away before a new trigger occurs.

A black HD video with mute audio 000.mp4 file, a mute audio 000.mp3 file and some active video and audio test files can be downloaded from the Sprite Media Player page on Spectra

Examples of the 2 files are:

Video only and video + audio: 000.mp4, 000.ts, 001.mpg, 001.mov ,etc.

Audio only: 000.mp3, 000.wma, 001.mpa, 001.aac, etc.

If you wish to keep your original file names for ease of identification, you may prefix the file name with the appropriate number and dot.

Examples: 000.attractvideofile.mp4, 001.announcement_A.mp3

See the Sprite® User Manual for a full list of supported media formats and file extensions.

Adjustments

You may need to experiment with the location and angle of the DV-PIR sensor for best results. Sometimes mounting on a wall is best, for other applications the ceiling is best. You can also limit the view of the sensor by partially blocking it with black tape or some other obstruction. Most uses will not require any other adjustments. You can add delay to your video file 001 as required by adding some black or other uninteresting video at the end of the triggered file 001. This will allow the person time to exit the area before allowing a new trigger event.

Mounting

The DV-PIR sensor is mounted using screws into the slots in the sensor's casing.

Sealing the DV-PIR from rain and moisture

If you need to operate the DV-PIR in a wet or damp location, you must use silicone sealant or a similar compound to seal the rear cover, sensor dome to the case, and the wire exit hole. The DV-PIR cannot be operated under water. Rain and moisture will affect the sensor's range and field of view.

Note: The Sprite® DV-S1 media player must only be operated in a dry environment.

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