

Experimental devices for scaring & recording animals

Acoustic wildlife warning on railways

1. Question: Which sounds are most efficient to repel wildlife from railways when trains approach?
2. We developed two experimental devices (MASS and DASS) which record animal responses on video while playing a programmable selection of sounds.
3. Parameters such as video length, sound volume and delay, sequence of sounds and/or other signals can be adjusted.
4. Videos are stored on USB keys and can also be transmitted via Wi-Fi to an image server such as the Capture-platform (www.capture.slu.se).
5. MASS and DASS units constitute rather simple technical solutions that can be built with low technical knowledge and easily updated as well as expanded with new features.
6. The systems are based on Raspberry Pi. Code and design are open source and free to use in research.



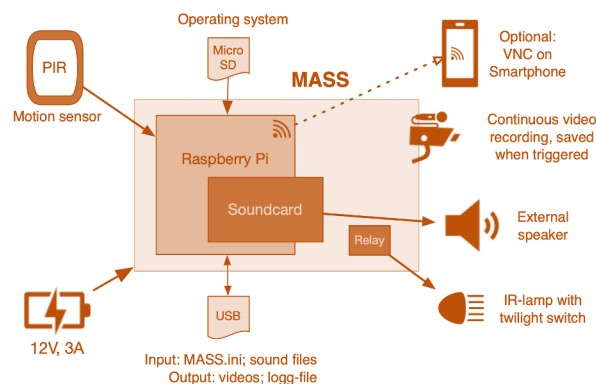
MASS Motion-activated-scaring-system

MASS devices have been positioned along railways and are triggered by animal movements. When triggered, the IR-camera records while a selected sound is displayed.

Power supply via battery and solar panel.

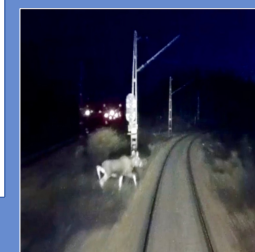
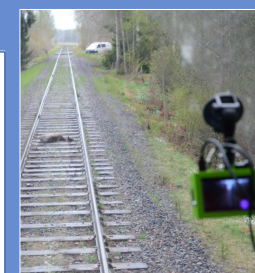
Sounds include e.g., human voices, predator calls, bird song, train horns, vehicle noise and railway bells.

MOTION ACTIVATED SCARING SYSTEM (MASS)

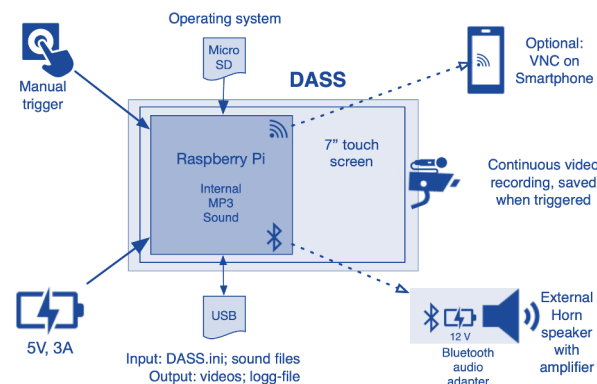


DASS Driver-activated-scaring-system

DASS devices are like Dash-cams mounted inside train windscreens. Video recording is started manually when the train driver detects animals on tracks. Sounds can be displayed on an external wireless speaker installed outside at the train engine.



DRIVER ACTIVATED SCARING SYSTEM (DASS)



Welcome to build your own MASS or DASS devices !