

Multifunctional Mainboard to Observe and Manipulate Organisms (MOMO)

Automating the recording and manipulation of animal behavior

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Potential uses of MOMO:

- Identification and manipulation of any species that can be fitted with a RFID transponder
- Studying movement and dispersal
- Nest or roost site selection
- Manipulation at feeding or breeding sites
- Capturing captive or wild species
- Energy and time efficient camera trap setups (triggered videos or pictures)
- Parental care rates (e.g. feeding rates) including prey item detection (e.g. including triggered camera trap pictures)

MOMO Example:

Camera trap activated when light barrier is crossed



RFID reader activated when light barrier is crossed

Food flap opens when tagged individual is detected by RFID reader

MOMO Example:



Benefits of using MOMO:

- Designed for long battery life and large data storage (weeks – several months)
- Ideal in isolated locations
- Minimal disturbance to study species
- No observer bias – fully automated
- Only activated when species is present (battery saving and no time-consuming post processing)
- Compatible with different clock receivers, RFID readers and external triggers (e.g. light barriers, camera traps)