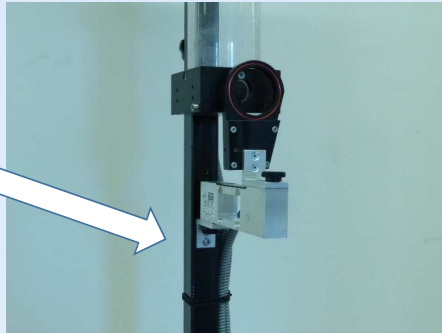


Multifunctional Mainboard to Observe and Manipulate Organisms (MOMO) Scales Application

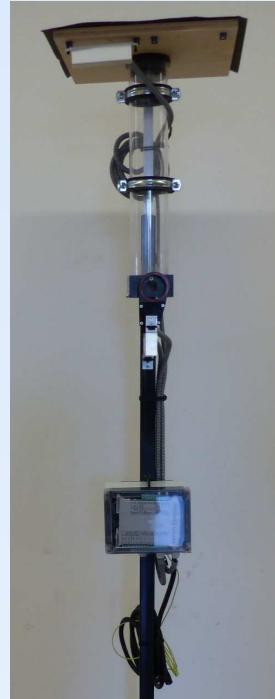
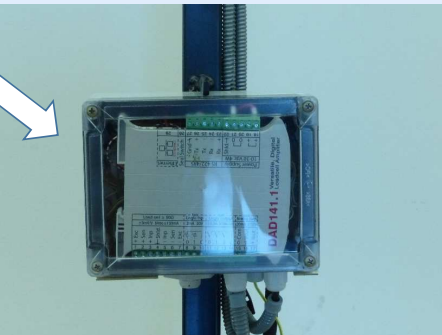
Automating the recording and manipulation of animal behavior

Peter Loës & Peter Skripsky
Department Kempenaers

Weigh cell



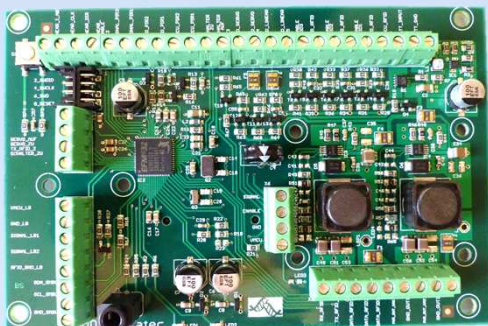
Amplifier



MOMO RFID
with Scales

APPLICATIONS OF THE MOMO (Scales):

- The Scales is used to measure the weight of the animals
- Identification of any species that can be fitted with a RFID transponder
- Could be used in other settings e.g. nesting or roosting areas to get the weight and ID of individuals



MOMO Circuit Board

POSSIBLE CONFIGURATION SETTINGS:

Operating time of the feeder [hour:min]

ON_TIME = 04:00

OFF_TIME = 23:00

RFID settings [sec]

RFID_TYPE = SR # Short Range reader

RFID_POWER = UA1 # 5V output

RFID_ABSENT_DETECT_TIMEOUT = 5

Scales configurations

SCALES_POWER = UA2 # 11V output

SCALES_CFG_TW = 20 # Tare Window [g]

SCALES_CFG_TI = 2000 # Tare Interval [ms]

SCALES_CFG_NR = 15 # Nominal silence weight [g]

SCALES_CFG_NT = 500 # Nominal silence Time [ms]

SCALES_CFG_SD = 100 # Start Delay [ms]

SCALES_CFG_MT = 600 # Measure Time [ms]

SCALES_CFG_TL = 25 # Trigger Level [g]