## **Resource Summary Report**

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# **Wheel Running Activity acQuisition**

RRID:SCR\_023353

Type: Tool

## **Proper Citation**

Wheel Running Activity acQuisition (RRID:SCR\_023353)

#### **Resource Information**

URL: https://github.com/neurobio-hiroshima/WRAQ

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**Description:** Open source microcontroller based system for wheel running activity in mice. Used to track circadian rhythms of rodents using microcontroller, powered by lithium polymer battery, and surveys exercise activity for up to 30 days. Data can be stored on microSD card or using online server using WiFi connection. Python software provides system interface with ActogramJ to analyze chronobiological aspects of data. Repository includes guide for installing integrated developmental environment and dependent libraries for building and setting up WRAQ systems - WRAQ and WRAQ-Wifi. WRAQ and WRAQ-WiFi are based on Adafruit Adalogger and DFRobot FireBeetle ESP32 connected to 4- and 8-bit binary counters receiving signal from reed switch attached to 5-inch flying saucer respectively.

**Abbreviations: WRAQ** 

Synonyms: WRAQ system, Wheel Running Activity acQuisition system

**Resource Type:** software resource

**Defining Citation: PMID:34479979** 

**Keywords:** OpenBehavior, instrument, building and setting up WRAQ systems, measure mouse wheel running activity, mouse wheel running, monitor wheel running activity,

**Funding:** 

Availability: Free, Freely available

Resource Name: Wheel Running Activity acQuisition

Resource ID: SCR\_023353

Alternate URLs: https://edspace.american.edu/openbehavior/project/wraq/

License: GNU GPL v3.0

**Record Creation Time:** 20230310T050222+0000

**Record Last Update:** 20250420T015246+0000

### Ratings and Alerts

No rating or validation information has been found for Wheel Running Activity acQuisition.

No alerts have been found for Wheel Running Activity acQuisition.

#### **Data and Source Information**

Source: SciCrunch Registry

### **Usage and Citation Metrics**

We have not found any literature mentions for this resource.