



## CatWalk XT 10.7

### Technical specifications

CatWalk™ XT is a user-friendly and highly sensitive tool for studying gait changes in lab rodents. It includes:

- **Walkway** - A glass plate with a corridor, illuminated ceiling, control unit, and goal box.
- **Camera** - A high-speed color camera (100 fps) to record footfalls and body contour.
- **Software** - CatWalk XT software (version 10) for recording and analyzing footprints and gait.
- **Computer** - High-performance computer to run the software.

### PART 1 - HARDWARE

#### Walkway

- Made of scratch-resistant glass to detect footprints.
- Rodents walk from left to right towards a goal box.
- Best used in low-light conditions or dim red light.
- Dimensions: 130 x 68 x 152 cm.
- Weight: ~ 80 kg.

#### Illuminated Footprints Technology

- Uses green LED light (x nm) to highlight paw prints.
- High-speed camera captures illuminated paw prints.
- Ensures high-quality data with precise spatial and temporal resolution.

#### Glass Plate

- Clear, hardened, scratch-resistant glass.
- Dimensions: 130 x 20 x 0.5 cm.

#### Spring Operated Corridor

- Adjustable width for mice and rats.
- Easy to lift for cleaning and handling rodents.

#### Goal Box

- Located at the end of the corridor.
- Allows rodents to jump into their home cage.

#### Illuminated Ceiling

- Red LED (625 nm) backlight to visualize the animal's contour.
- Green LED (522 nm) to highlight paw prints.

#### Power Supply

- 24V unit, compatible with 100-240V AC and 50-60 Hz.

#### Control Unit

- Distributes power to the camera, LED rail, and ceiling.
- Controlled via USB connection.

#### Camera and Mount

- High-speed Gig-E Colour camera (100 fps).
- Light sensitive, high signal to noise ratio, 640x480 resolution image sensor.
- Adjustable to capture different portions of the glass plate.

### PART 2 - SOFTWARE

#### Navigation

- Task dialogues guide you through the application.
- Menu bar and experiment explorer for easy navigation.

#### Setup

- Set experiment groups, timepoints and run criteria.
- Define and calibrate the walkway.

- Adjust detection settings for optimal footprint detection.

#### Acquisition

- Select trials and acquire runs.
- Immediate and automatic feedback on run compliance.

#### Footprint Classification

- Manual and automatic footprint classification.
- Adjust intensity threshold for individual runs.
- Automatic classification-errors detection.
- Video zoom function makes difficult classifications easy.

#### Measurements

- Measures time, angles, distances and intensities.
- Creates parameters based on temporal and spatial measurements.
- Calculates functional indexes for nerve evaluation.

#### Profiles

- Data Segmentation Profiles to select consecutive gait cycles with specific criteria.
- Parameter Profiles to choose disease specific parameters for investigation.

#### Visualization

- Print view, sub-print view, timing view, 3D and 2D footprint intensities, footfall patterns, and graphical results.
- Custom build circular graphs for circular statistics.

#### Analysis

- Interactive numerical data sheets (interacts with run visualisation and video).
- Group statistics with appropriate graphs (e.g. circular statistics).
- Export data in multiple formats.

## PART 3 - REQUIREMENTS

#### Environment

- Operate in low visible light or red ambient light conditions to reduce stress to the animal.

#### Operating System

- Windows 10 (version 22H2) or later with administrator rights.

#### Computer

- Tested on Dell Precision 3660 (Intel Core I7 with 16GB or RAM).

#### Maintenance

- Clean walkway between runs and after use.
- Clean with mild colourless and odorless detergents.
- Handle foam stripe carefully.

## PART 4 - SERVICE AND SUPPORT

#### Manuals

- Detailed reference manual included with the software. Accessed by pressing F1 in software interface.
- Installation manual in install folder on computer
- Video tutorials in install folder on computer and in MyNoldus

#### Installation and Training

- On-site installation and training available.
- Training materials available in MyNoldus.

#### Technical Support

- Free technical support with Noldus Care.
- Leave support tickets in MyNoldus.

#### Consulting Services

- Assistance with research problems related to CatWalk XT.

## CONTACT INFORMATION

Please check our website for contact details.

[www.noldus.com](http://www.noldus.com)

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