



ROLLER COASTER SOUND BUILDER

EFFECT SENSE

ABOUT THE SOUND LIBRARY

The Roller Coaster Sound Builder was created to provide a huge variety of high quality roller coaster sound effects in a usable form with multiple takes. The sounds were recorded during three days in Särkänniemi Amusement Park, Tampere, Finland in 2016.

For capturing clean roller coaster passbys and onboard recordings, we recorded the rides in the early morning, before the park was opened for the visitors. To capture also the lively amusement park sound effects with people screaming on roller coasters, we stayed there for the rest of the day to get as many natural screams as we could. We had full access to the park so we could place microphones to the optimal places.

In total, all five roller coasters of the amusement park were recorded with multiple microphone positions, including LCR + handheld microphones for maximum quality and usefulness in multichannel mixing and game sound design. Three roller coasters were also recorded onboard, rigging multiple microphones on the trains. The

package includes raw recordings for every channel. For some tracks, also RX5 versions are included, where the background noise is removed to provide only the cleanest roller coaster sound.

All the recordings were carefully edited and metatagged in easy to use sound clips. Two roller coasters also include a Pro Tools project file with all the different channels synced in place. This allows you to easily build your own roller coaster sounds with our multi-microphone setups.

In addition, during the recording sessions we captured many other amusement rides and park ambiences. They, including a pirate ship, log flume, and Disk'O Coaster can be found in the Amusement Rides & Ambiences sound library from our website, effectsense.com

This document includes spec sheets for all five roller coaster and information about how they were recorded.

- Pyry Survo, Effect Sense

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NEW COASTER UPDATE 07/2018

A new roller coaster, triple-launch steel coaster named Hype, was opened in the Särkänniemi Amusement Park in the summer 2017. The ride is the Sky Rocket II model by Premier Rides, and it is the only of its kind in the Northern Europe. Obviously I had to go and record it.

This update includes my recordings from the new coaster. Again, I was able to record clean passbys and onboard sounds when the park was closed. In addition, a lot of new passby screams are included, recorded at the station which is the part of the track with the highest speed (100 km/h).

I had two recording sessions: One for the clean onboard recordings, and another day for the clean passbys and screams. The clean passbys were recorded in the morning before the park was opened, and screams when the visitors arrived. I was even able to record below the station, from a place that is not accessible to the public. The passbys sounded really fast and aggressive there.

Due to the small space and less time available at the recording locations, I couldn't use the heavy LCR rig this time. Instead, I went with lighter equipment. For the clean passbys I followed the train with a MKH 416 on one hand and a Sony PCM-D100 in the other hand. For the screaming passbys I used only the D100 to keep low profile as I was standing on the station level together with the park visitors.

As always, the sounds were carefully edited and metatagged for easy and quick use.

With this update, the Roller Coaster Sound Builder now includes six different roller coasters in total. We're really proud of this collection and glad to share it with you.

Enjoy your new sound effects!

- *Pry Survo, Effect Sense*

info@effectsense.com

RECORDING EQUIPMENT

PASSBYS:

#1. LCR + handheld

Sound Devices 744t recorder
2x Sound Devices MM-1
Left/right: 2x Sennheiser MKH60
Center: Oktava MK012-01 cardioid
Sennheiser MKH416 tracking along

#2. Quadrophonic 4.0 setup

Superlux S502 ORTF mic
Zoom H6 XY mic
Zoom H6 recorder

#3. Stereo ORTF:

2x Audio Technica AT4053B
2x Sound Devices MM-1
Zoom H6 recorder

#4. Stereo handheld:

Sony PCM-D100 portable recorder
Rycote Portable Suspension

ONBOARD:

Various setups with:

Zoom H6 / F8 recorder
Sennheiser MKH50
Shure SM57
Sennheiser MD421-II
2x Crown GLM-100
2x Ehrlund EAP contact mic

Stereo handheld (only for small steel roller coaster):

Sony PCM-D100 portable recorder
Rycote Portable Suspension



BIG STEEL COASTER TORNADO



BIG STEEL COASTER

Tornado is a steel inverted roller coaster with a clanking chain lift hill, big drop, loop, cobra roll, two heartline rolls and two tunnels. The station and the first heartline roll are underground in a cave cut out of natural rock. The first drop and multiple inversions provide great, classic roller coaster passbys and screams.

TORNADO SPEC SHEET

Opened in	2001
Manufacturer	Intamin Amusement Rides
Model	Suspended Coaster
Trains	2 trains, 24 seats per train
Top speed	75 km/h (46.6 mph)
Track length	700 m (2,296 ft)
Ride duration	~2:10 min

- [Read more about Tornado on the manufacturer's site](#)
- [Watch Tornado onboard POV video on YouTube](#)

- LCR + Handheld
- Quad
- ORTF
- D100

PASSBY: 01A-06A
SCREAM: 01-09

PASSBY: 01B-08B

SCREAM: 14-17
Cobra roll
PASSBY: 07A-08A
SCREAM: 10-13

PASSBY: 01C-08C
SCREAM: 21

First drop

Loop

Last curve

MECHANICS 01-05

SCREAM: 18-20



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**BIG STEEL COASTER
MICROPHONE POSITIONS**



LCR + handheld
microphone setup



A low-angle, upward-looking shot of a roller coaster track. The track is made of dark metal and features a large loop. In the foreground, a quadrophonic microphone setup is visible, consisting of four microphones with large, dark, fuzzy windshields arranged in a circular pattern. The background shows a cloudy sky and some green foliage on the right side.

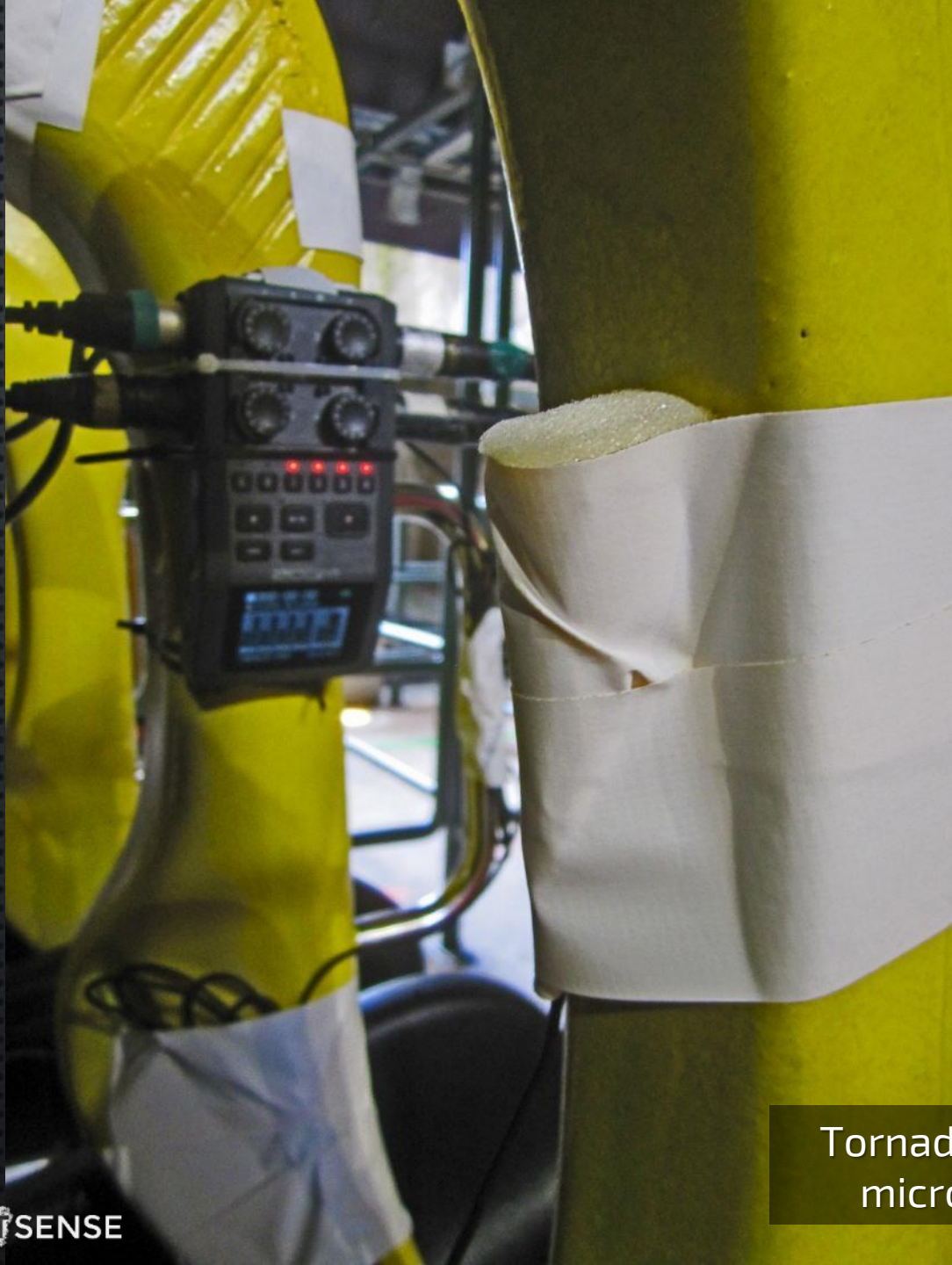
Quadrophonic 4.0
microphone setup



Recording authentic
roller coaster screams



Tornado onboard rig



Tornado onboard
microphones

FLYING COASTER TROMBI



FLYING COASTER

Trombi is a steel flying roller coaster with a spiral lift, tight curves and two heartline rolls. Due to the metal structure and small footprint, it rattles more than Tornado and gives multiple different passbys in a single track cycle recording.

TROMBI SPEC SHEET

Opened in	2005
Manufacturer	Zamperla
Model	Volare
Trains	6 single car trains. 4 riders per train
Top speed	41 kmh/h (25 mph)
Track length	391 m (1,282 ft)
Ride duration	~2:18 min

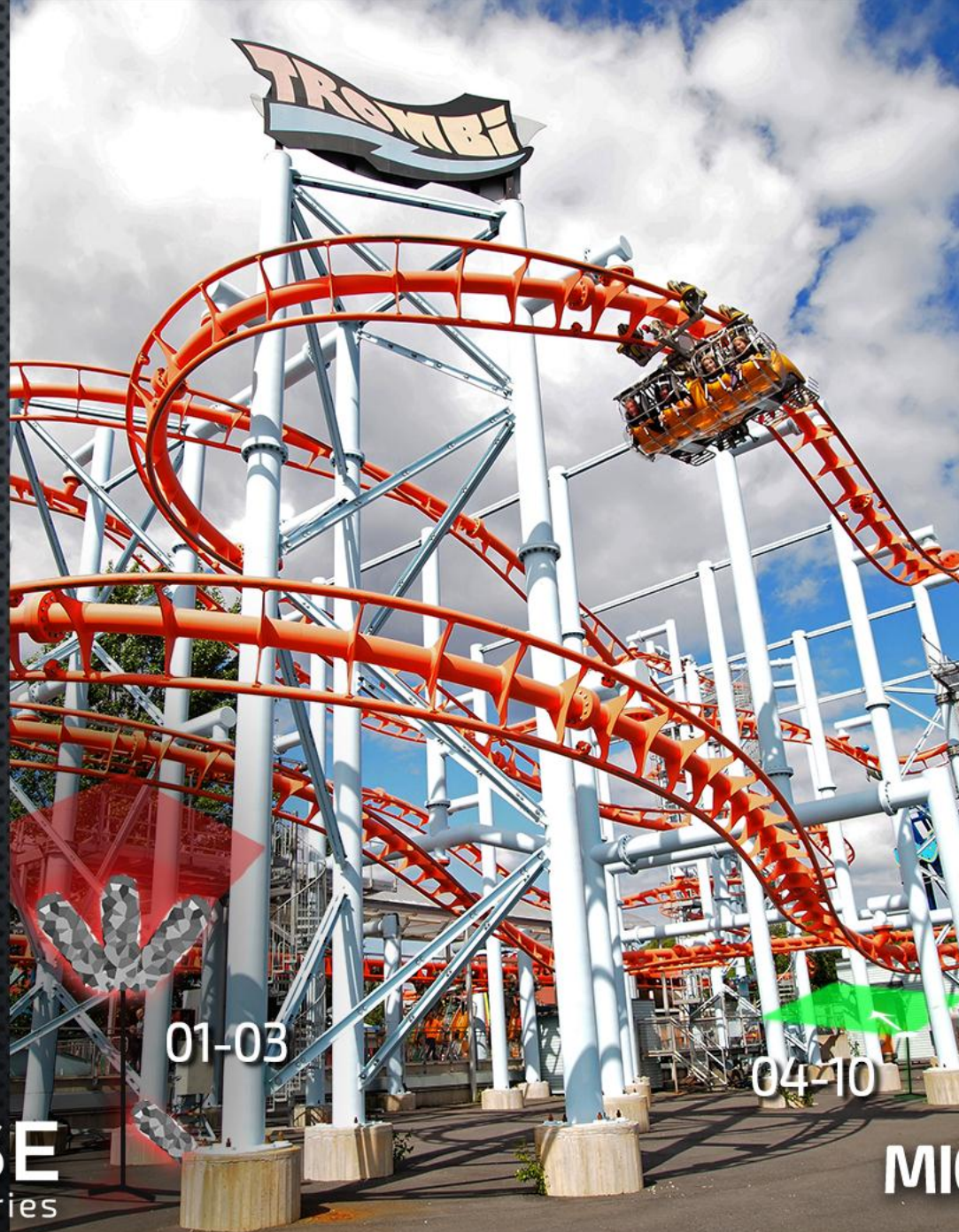
- [Read more about Trombi on the manufacturer's site](#)
- [Watch Trombi onboard POV video on YouTube](#)



LCR+ Static mono ●
ORTF ●



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**FLYING COASTER
MICROPHONE POSITIONS**



Rigging Trombi
onboard mics



Trombi onboard rig

Photo: Jousia Lappi

A photograph of the Impulse Coaster Half Pipe, a roller coaster at the Effect Senses theme park. The image shows two orange, half-pipe-shaped cars stacked vertically on a tall metal track, with passengers visible inside. The background is a bright blue sky with scattered white clouds. The right side of the image features a dark grey background with a white dot pattern.

IMPULSE COASTER HALF PIPE

IMPULSE COASTER

Half Pipe is a U-shaped steel launched shuttle roller coaster. It uses aggressive-sounding electromagnetic Linear Synchronous Motor (LSM or LIM) to boost the vehicle to high speed. Back and forth movement gives multiple high-speed passbys in a single take.

HALF PIPE SPEC SHEET

Opened in	2003
Manufacturer	Intamin Amusement Rides
Model	Half Pipe Coaster
Trains	One skateboard-shaped vehicle, 16 seats
Track length	70 m (230 ft)
Top speed	70 kmh/h (45.5 mph)
Ride duration	~1:30 min

- [Read more about Half Pipe on the manufacturer's site](#)
- [Watch Half Pipe onboard POV video on YouTube](#)



LCR + Handheld ●
Quad ●
D100 ●



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02C
03B-04B
01A-02A
01B-02B
03A-04A
01C

**IMPULSE COASTER
MICROPHONE POSITIONS**



LAUNCHED COASTER HYPE

LAUNCHED COASTER

Hype is a triple-launch steel roller coaster with an electro-magnetic LSM system that boosts the train to a very high speed. It has a modern and smooth steel coaster sound without any rattling or squeaking. The train passes the station multiple times at high speed providing intense and fast passby screams.

HYPE SPEC SHEET

Opened in	2017
Manufacturer	Premier Rides
Model	Sky Rocket II
Trains	1 train, 12 seats per train
Top speed	100 km/h (62.1 mph)
Track length	260 m (853 ft)
Ride duration	0:55 min

- [Read more about Hype on Roller Coaster DataBase](#)
- [Watch Hype onboard POV video on YouTube](#)





Hype scream recording position



Hype onboard recording



MOTOGEE MOTORBIKE COASTER

MOTORBIKE COASTER

MotoGee uses a moaning flywheel launch to accelerate from 0 to 67.5 km/h in only 2 seconds. Surprisingly fast launch causes great, high-speed screams. Minimal track footprint results in multiple passbys with a single track cycle recording.

MOTOGEE SPEC SHEET

Opened in	2010
Manufacturer	Zamperla
Model	Moto Coaster
Trains	2 trains, 12 riders per train
Top speed	Accelerating to 67.5 kmh/h (42 mph) in 2.0 seconds
Track length	364 m (1,194 ft)
Ride duration	~2:20 min

- [Read more about MotoGee on the manufacturer's site](#)
- [Watch MotoGee onboard POV video on YouTube](#)





28-29



Machine room

19-20



22

21



Station

• 23-26

01-18

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MOTORBIKE COASTER
MICROPHONE POSITIONS



MotoGee launch
passby screams



MotoGee passbys
inside ride area

SMALL STEEL COASTER WHIRLEY WORM



SMALL STEEL COASTER

Oval-shaped Whirley Worm (Vauhtimato in Finnish) is a pleasant-sounding steel roller coaster. A normal ride consists of 5 track cycles giving multiple classic roller coaster passbys. A booster wheel lift hill propels the train for a new cycle.

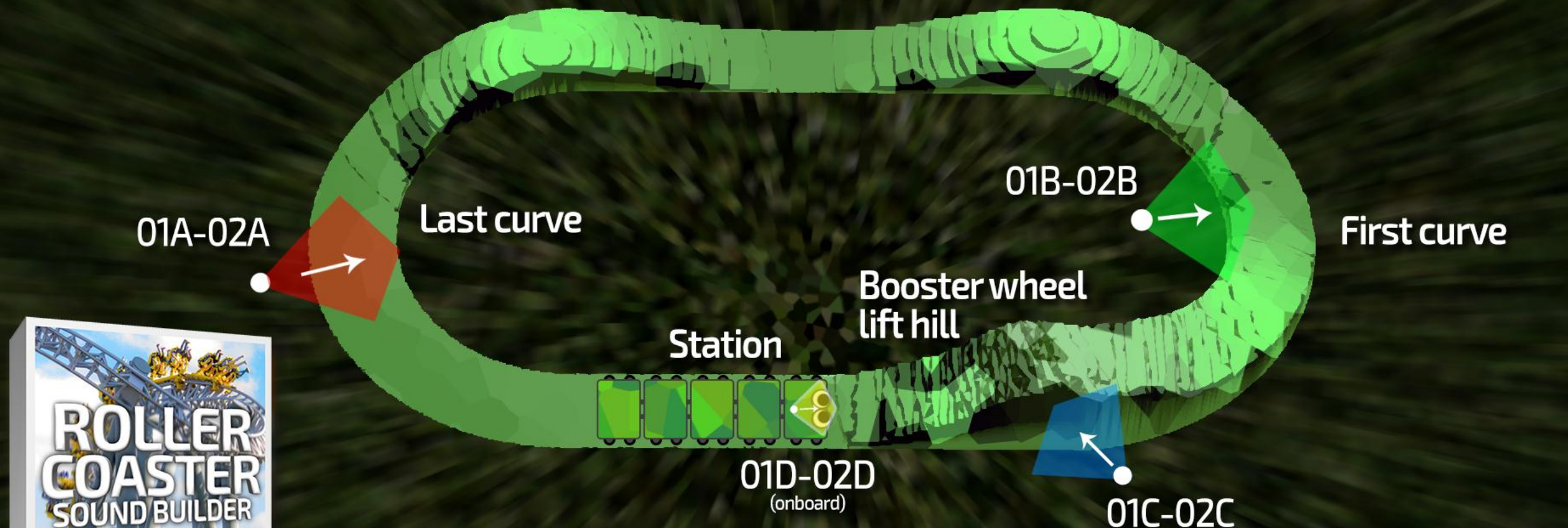
WHIRLEY WORM SPEC SHEET

Opened in	1984
Manufacturer	Zierer
Model	Sit down family coaster
Trains	1 train, 10 seats
Top speed	26 km/h (16.2 mph)
Track length:	60 m (197 ft) x 5 times
Ride duration	~1:20 min

→ [Watch Whirley Worm onboard POV video on YouTube](#)



LCR + Handheld ●
XY ●
ORTF ●
D100 ●



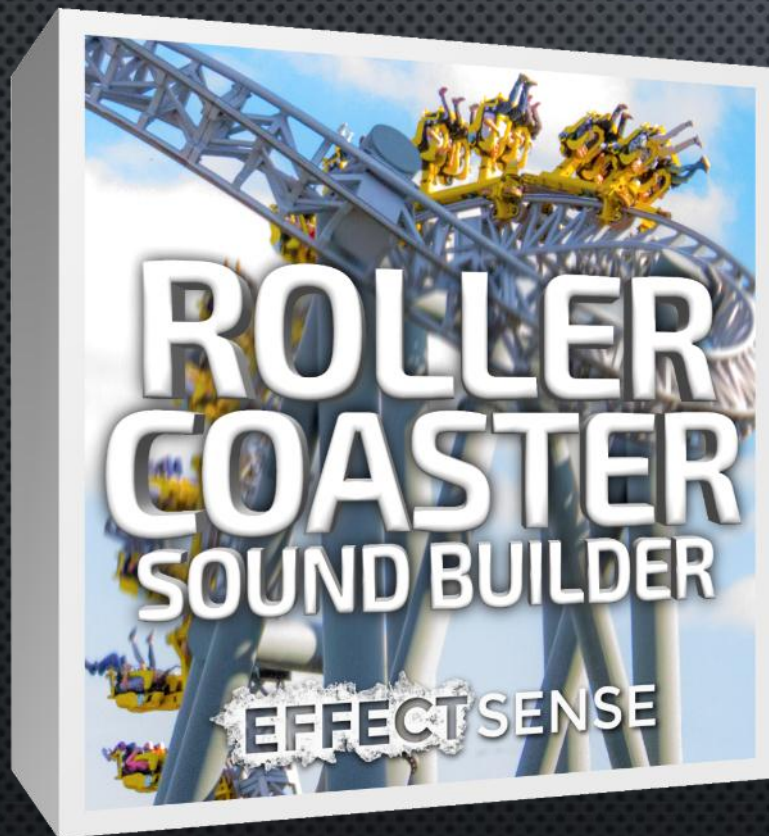
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**SMALL STEEL COASTER
MICROPHONE POSITIONS**





Whirley Worm
onboard recording



For more information about our recording sessions and sound libraries, visit our site at effectsense.com

If you have any questions or comments about our sound libraries, please send us a message. We'd be glad to hear from you.

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