EXPERIENCE-ORIENTED TRAFFIC PREVENTION

Information prospectus

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VR BIKE

Awareness topics: Accidents, e-bike speed, visibility at night, changing perspectives between motorists and cyclists.

VR DRIVING SIMULATOR

Awareness topics: Drunk driving, distracted driving, Microsleep, ocological driving

ENERGY SAVING GAME

Entertaining short game, in which unnecessary energy consumers in the car are to be switched off.
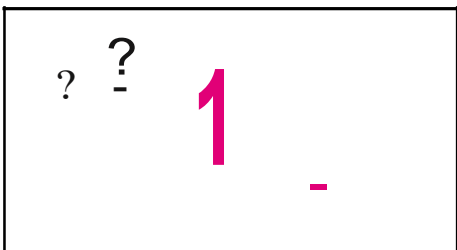
YOUNG DRIVER TRAINING VIDEOS

Smartphone Game for young drivers around to sensitize and train them for potential accident situations in road traffic.

360 Degree VR App

A virtual reality quiz with tasks4 and their solutions - from the perspective of cyclists and from the opposite perspective of the Car drivers.

YOUR IDEA?

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The experiential isori_ed traffic awareness tool: Experience dicey traffic s1tuat1ons on the unique interactive bike riding simulator.

The Virtual Reality Bicycle is used to create, by means of different dangerous situations to develop responsible action skills that can be transferred to concrete everyday situations. Decisions in favor of road safety should be positively influenced - whether from the perspective of the cyclist or from the perspective of other road users such as cars and trucks. In addition, the effects of reduced driving ability (alcohol, drugs, distraction by smartphones) on the journey should be experienced.

Hazardous situations are to be identified analogously to the statistically most relevant

accident causes are generated including the topics "drunk driving" and "inattention" (cell phone).

Also the new emerging dangers like hi:iher speeds by e-bikes are taken up or the speed of the e-bikes can be simulated by a function key.

The VR bike simulator was created on the initiative of Am Steuer Nie and implemented by Virtual Reality Learning GmbH. It is widely used by various carriers and is used by police corps, vocational schools and at i:ifpublic events, fairs and prevention workshops.

Claim and goal of the simulator

The goal of the project is to develop virtual reality bicycle simulators for prevention/sensitization regarding bicycle accidents.

- Raise awareness of the risks and dangers of cycling.

- Educate about the effects of inattention and substance use on cycling.

- Remind people of their own responsibility in the area of traffic rules and mastery of cycling.

- The simulator aims to address and illustrate real hazards.

How does the VR bike system work

The VR Bike System consists of several components: On the one hand, a bicycle with a low entry, a smart trainer that is responsible for the resistance, a powerful VR notebook, VR goggles and sensors that record speed, steering and braking behavior.

The VR Bike System can be transported by a large car (station wagon), or any vehicle with enough space to transport a bicycle, and set up within 30 minutes.

The commissioning should ideally be carried out by employees who have been trained once by us (initial training time approx. 2-3 hours, incl. test run for setting up and dismantling the VR Bike). See

Hardware VR Bike for more information.

As a rule, the VR Bike is used in a supervised manner, i.e. one person is present at the VR Bike and supervises the persons trying out the VR Bike.

want. They sit on the VR bike and can ride various risk scenes as desired, such as
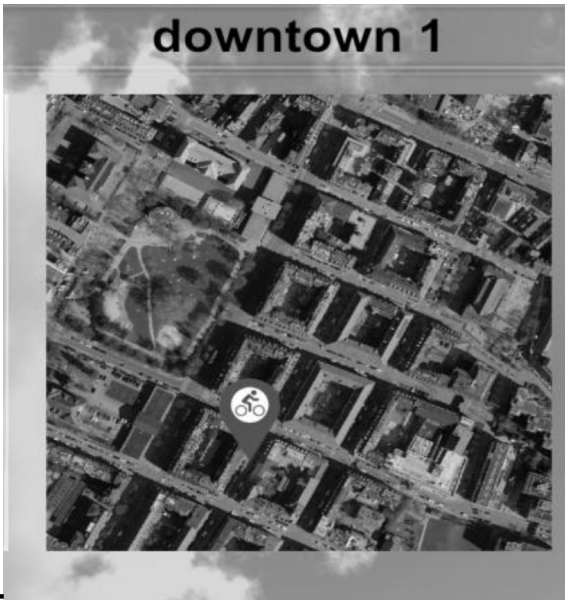e.g. driving at night without lights, change of perspective bike - truck etc.

The software is available in different languages.

measured reaction time

1 /m

0.2s

replaymenu

initial speed	30.9 kmlh
reaction time	0.2 s
	1. 7m
reaction distance	13 . 1m
braking distance	14.8 m
distance to obstacle	1. 1 m
distance	

downtown 1

VR BIKE: SOME SCENES

rt

Change of perspective: How well do you see a cyclist at night without lights, with lights, with Reflectors?

68

Braking distance: comparison van reaction times and distance
nuchtern
compared to drunk driving

28.1

Change of perspective: How well does
me a truck driver?

17.1

Distraction : How to react when your smartphone rings and attracts your attention - and only a few fractions of a second later, actually a danger appears.

25.2

VR FAHRRAD FEATURES

Virtual Reality
All scenes can be driven through virtual reality. This leads to a stronger immersion and to the fact that the person driving is more strongly placed in the scenery. If some people experience motion sickness, many of the scenes can also be ridden without effort using our second mode (without VR).

Change of perspective
People who regularly use both cars and bicycles, and thus have traffic experience from both perspectives, experience significantly fewer conflicts.
The change of perspective is executed in such a way that a situation is first passed by bicycle, then the change to the perspective of other road users (e.g. truck drivers, car drivers, pedestrians) takes place and is played back in replay mode.

Fahrtwind - improved Fahrgefi.ihl As has been found in scientific studies, the trace of Fahrtwind has the effect of reducing any motion sickness that may occur.

Evaluation screen
This is one of our most popular services. Many of our customers have benefited enormously from it. We provide this service at the highest level. In this service, we pay special attention to making sure that all details are handled easily, smoothly and promptly. When you work with vr bike.info, you can rest assured that you are in good hands.

Different scenarios
The VR Bike includes about a dozen different scenarios - from a car pulling out in reverse, to a truck turning right, to a parked vehicle where doors are suddenly opened. Of course, braking sections, traffic circles, night driving, etc. are also included.

Alcoholized mode
We would like all our customers to benefit from the high level of expertise at vr-bike.info. All our services, especially this one, are designed to make your life easier and less stressful. You can count on us to provide you with excellence and the best customer service.

Accident simulation
Accidents are simulated i.iber a "black screen" and a crash noise.

Statistics
It is possible to record the number of VR Bike users, the number of scenes ridden, the duration of use and other parameters.

Visibility (night)
Function with light and without light : To show how dangerous it is when other road users do not see the cyclist.

Tempo
The decrease of different speeds or different tempos are possible.

There is a normal mode and an E Bike mode. in normal mode is driven about 15- 25 Km/h, in E Bike mode is driven about Km/h45.

VIRTUAL REALITV CAR DRIVING SIMULATOR

Car Virtual Reality Driving Simulator

The car driving simulator is used to raise awareness in the following three areas:
- Alcohol / Drugs at the wheel
- Distraction & Mudiness
- Okologic driving

The software was developed in close contact with road traffic prevention agencies and is based on their needs.

The hardware consists of models that are either highly portable or have a motion base that simulates acceleration forces while driving to evoke an even more realistic driving experience.
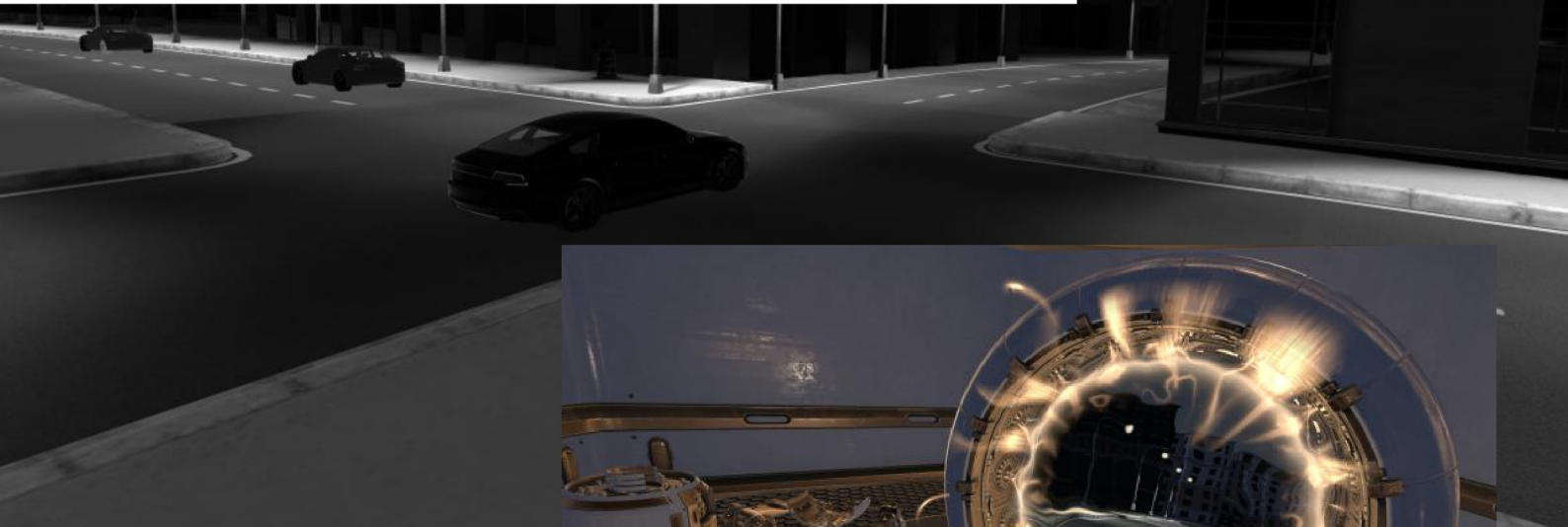
Alcohol link:
https://www.youtube.com/watch?v=kkSWJ7bVqq4

Link distraction:
https://www.youtube. co m/ wat ch ?v= OkX9C-MSFxQ

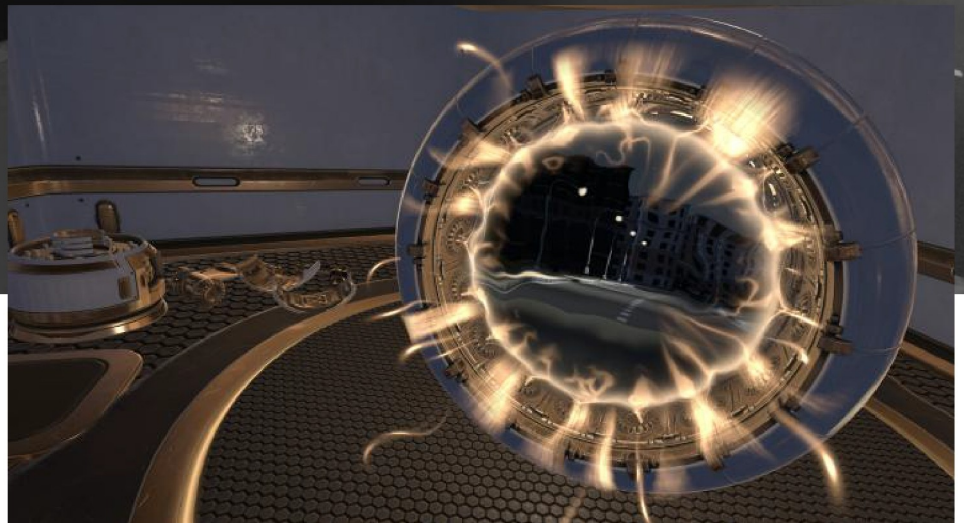# ENERGIESPAR VIRTUAL REALITY GAME

Order

A VR game was designed to make public prevention events more attractive:

The goal was to create an awareness VR game that could be set up anywhere with little transportation: All the material can be transported and set up in a suitcase.

The goal is for the users to remove as many unnecessary energy consumers (seat heating, air conditioning, unnecessary luggage) as possible from the passing cars within a certain period of time. A slow-motion function was integrated to make it even more fun: users could print a button on their controllers that triggered a small time explosion and slowed it down for about 20 seconds, making it easier to remove the corresponding energy consumers.

Link:
https://www.youtube.com/watch?v=W4H2EMHQxql

DIE SPANNENDE ATTRAKTION FÜR IHREN EVENT

EcoSave

21 von 25 Autos korrigiert. Dabei 50 Energieverbraucher ausgeschaltet.

1428 Liter (68 Liter pro Auto) pro Jahr gespart.

Gerechnet für die ganze Schweiz ergibt das 12240 Tanklastwagen eingesparten Treibstoff pro Jahr.

20% Bis zu 20% können eingespart werden, wenn Du alle aufgeführten Tipps beachtest.

SMARTPHONE GAME ZUR GEFAHRENSENSI-BILISIERUNG FÜR JUNGLENKER

For the Accident Prevention Center, we have calculated the number of accidents on the basis of statistical data.
The study of the accident frequency of young drivers in comparison to experienced drivers has produced various learning materials (moving images and still images).

These include interactive situations in which driving instructors must click into the video at the correct braking time or recognize various hazards.

We are currently developing a tool that can be used in class: The video is played on the instructor's screen, and the students can click on their cell phones at the right moment.

We are particularly proud of the degree of realism of many situations: In order to model the accident sequences as precisely as possible, these were digitally remodeled in 3D software based on real environments.

VIRTUAL REALITY CLASSROOM QUIZ
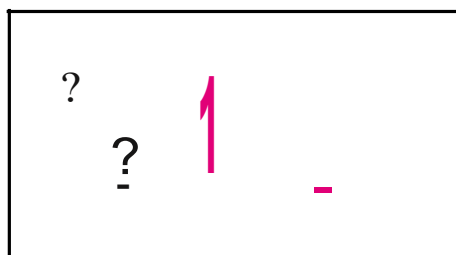## "CHANGE OF PERSPECTIVE"

For the Verkehrsclub Schweiz and Pro Velo we have developed a 360 degree application:
The learners receive a VR loan set in class with which they can experience 4 different situations by means of degree360 films.

The films are stopped in the middle and questions appear about the correct behavior or what will happen next.

The learners can answer the questions directly in the VR goggles and then receive a direct evaluation: the wrong or correct behavior in traffic is shown, partly also from the perspective of oncoming traffic.

Is the cyclist behaving correctly?

JANEIN

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In a free and non-binding discussion, we will explain to you the implementation options, possible stumbling blocks and costs, and we will also be happy to demonstrate the various applications.

VRL - YOUR PARTNER FOR EXPERIENCE-ORIENTED TRAFFIC PREVENTION

Our team with competences in the Areas
- Driving training
- Programming
-3D
- Virtual Reality
- Adult Education
is at your disposal for the development of traffic-specific awareness content.

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