



VIRTUAL REALITY 1 & MIXED REALITY

Ever since Virtual Reality was first introduced it sparked the imagination of millions and we were waiting for the time when VR becomes available and affordable

The time is now, and experience is truly magical. Once you try VR for the first time, you will understand that the future of digital is not on our screens, but in virtual and augmented realities. As we are constructors of these new worlds, possibilities are truly limitless.

As for VR equipment, we use all sorts of VR headsets like **Meta Quest 2 / Pro, HTC Focus 3, Pico 4, etc.**

As for Holographic glasses we are using **Microsoft Hololens, Nreal Light, etc.**

1.2. VIRTUAL REALITY AND MIXED REALITY PROJECTS

Virtual worlds are the next big thing when it comes to brand identity and marketing, and we are at the very front of innovation when it comes to developing virtual spaces for a wide range of devices.

- 1.3. SBB VR ACTIVATION
- 1.4. TRB VR ACTIVATION
- 1.5. Takeda Vision 2025 VR experience
- 1.5. LiSEC EXPO
- 1.7. VR BASKETBALL THROWING
- 1.8. AL DAHRA VR EXPERIENCE





The idea is simple. Players had to learn about cable and internet packages SBB provides enter our Virtual Reality showroom, and arrange brands in color-coded boxes.

The game is very social in nature, and players are playing side by side, and competing at the same time. The majority of audience consisted of children, who couldn't wait to get their hands on a first class VR headset. In order to make the game more interactive, we have used two HTC VIVE headsets, which allowed players to move in space, interact with Channel Logos, and develop their own play style.





1.3. SBB VR ACTIVATION









At IDEX - International Defence Exhibition & Conference in Abu Dhabi, TRB made a breakthrough in presenting arms and vehicles. In order to make the transport easier, and at the same time, bring more to the table, TRB decided to put the products in Virtual Reality. Using HTC Vive Pro, IDEX visitors were able to see and learn about, not one, but four types of life-size Despots - a multi-purpose, highly protected, extremely survivable, off-road 4×4 vehicle.

Another showcased machine was the demining machine MH-I7 in different colours and three types of tools. There were also several short films representing TRB and their other ventures. A different approach to product presentation was a VR shooter with a model of RS9 VAMPIR - 9mm semi-automatic pistol. Visitors could test their shooting skills in a safe environment right there at IDEX. The visitors could also see a 360 image of these products and flip through a kinert brochure.

1.4. TRB VR ACTIVATION

ILB BANK

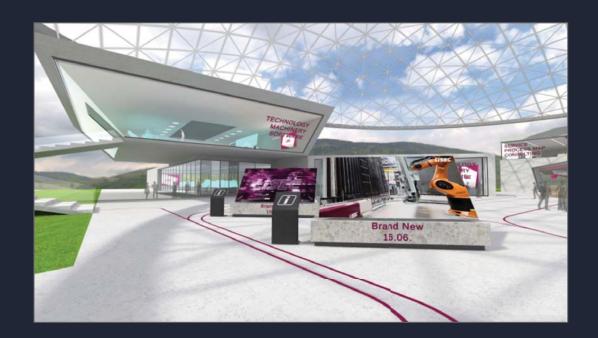




Takeda Vision 2025 experience was envisioned to be an educational and fun VR experience with an intent to educate the employees of the Takeda company on the goals and the future towards which they strive.

The game exudes a strong competitive tone, with a quiz-like atmosphere, with players answering the questions, and by giving a correct answer proceeds to the next level. Each phase gives the player an immersive experience of different parts of the Takeda garden

1.5. Takeda Vision 2025 VR experience



This VR experience was created as a part of the LiSEC company marketing campaign. They have been an industry leader in the field of flat glass processing. Three products could be seen in the VR space: the DSC-A cutting table, an automated framing robot, and a new dispatch software program.

This is an important milestone when it comes to Web3 adoption in a wide array of industries that do not understand the benefits that this kind of product ensures.

1.6. LISEC EXPO





The use of virtual reality in throwing a ball into a hoop is so close to reality that it is an irresistible experience for all participants in the competition.

Easy to use controllers makes you feel like holding a ball in your hand and with a bit of effort you feel like a real basketball plaver!





1.7. VR BASKETBALL THROWING





The app has been developed in collaboration with Al Dahra company exclusively, to be used for VR purposes.

It shows the entire process of crop nurturing, harvesting, and packaging by the Al Dahra company, ready to be shipped worldwide. Up until today, we have filmed these processes in Egypt, Romania, USA, Morocco and Serbia, with plans to expand our portfolio.

The main purpose of this app is to be used as a presentation tool for agricultural fairs and presentations regarding the topic. We have accompanied the Al Dahra company on some of these occasions in Dubai and Abu Dhabi, with more countries worldwide yet to come.

For this purpose, we are using the Meta Quest 2 VR headset

1.8. AL DAHRA VR EXPERIENCE

AUGMENTED 2 REALITY

Augmented reality works by tracking images and codes through camera. These pictures or codes are called image targets. The software detects and tracks their position in three-dimensional space and enables correct placement of objects on top of these targets. Targets are usually printed on paper, thus allowing pictures in magazines, books or brochures to come to life

Modern mobile phones can render high-quality 3D objects on top of the camera image and tracking targets. These 3D objects can be interactive and deliver additional value to underlying printed content. Modelling, texturing and lighting are essential elements in bringing believable objects optimized for mobile rendering.

Augmented Reality can also be used on big screens, either TVs or LED displays to overlap real-life camera images with virtual objects. Using sensors like Microsoft Kinect we can track body and face movement in front of the screen and apply 3D objects on top of this movement. A great example of this is our Magic Mirror solution.

2.1. AUGMENTED REALITY PROJECTS

We are blending the real world with virtual reality by letting light seep through the camera lens of your phone, and it has slowly become a feature desired by companies from around the world.

Our portfolio ranges from interactive virtual guides to architectural representations, all made possible by the sheer creative freedom that is AR.

- 2.2. 3D COLORING BOOK
- 2.3. VOBAN ASSISTANT
- 2.4. GTC GREEN HEART APPLICATION
- 2.5. DRIVE CAFE APP
- 2.6. Intesa SmARt Rokovnik
- 2.7. BELVILLE SMART APP









For our client Imlek and in collaboration with Direct Media, we had the task of designing content that would be equally interesting to the youngest but also to their parents. And we achieved that with "Moja Kravica" mobile app, which you can download for free from Android or Apple Store.

The unique augmented reality coloring book which represents a completely new, exciting and super-entertaining experience, encourages children's creativity in an original way (however, the adults haven't remained unaffected)

2.2. 3D COLORING BOOK



Meet Voban – Vojvođanska bank's virtual assistant. Voban has many functions. Just point the camera towards your Vojvođanska bank card, and he can give you extensive explanations of administrative procedures of your interest, he can speak in Serbian, English, and Hungarian.

One of the most interesting capabilities of Voban is the discount locator which uses geolocation. He can even take care of your meeting appointments with the bank. We used a variety of technologies while perfecting Voban, such as face tracking and motion tracking for recording Voban's movements. Also, we developed a mobile app for both iOS and Android. Vojvođanska bank promoted Voban Assistant to their colleagues and clients at a corporate event in Budapest, Hungary. Vojvođanska bank presented Voban Assistant using Microsoft Hololens, which gave the opportunity to interact with Voban in a completely different manner.

2.3. VOBAN ASSISTANT

VOJVODJANSKA BANK





Welcome to the future of real estate. Explore the new GTC Green Heart Complex in VR and AR. Virtual Reality gives you the opportunity to see the outside and the inside of the buildings with the help of Google Cardboard and Gear VR.

The trigger for Augmented Reality is GTC Green Hear Brochure. Open the app and point the camera toward certain pages in the brochure, and the entire GTC Green Heart Complex will appear in front of you. Changing the angles of your phone or tablet allows you to see the buildings from different points of view. This approach to real estate opens up new opportunities for both buyers and sellers





2.4. GTC GREEN HEART APPLICATION









2.5. DRIVE CAFE APP

NIS PETROL

When new-age tech meets everyday life, the end result is AR. The Drive Cafe App lets the user interact with a coffee cup simply by pointing the phone camera at it, spawning a mini Vespa rider driving around the cup, guiding you through a perfect way to create coffee art. You can play around with the message, the font, and the artistic style, after which you can share your creation on social media. Who knows, you may earn a month's supply of coffee by engaging your creative gray cells!

SmARt AR app was developed for the purpose of being used in concordance with Intesa planners. The user has the option of marking the date and time on every page of the planner with a pen, after which the AR app can, with the use of the scanner, input the data into the calendar and take notes of the contents by taking photographs.

Additional benefits include the art from the Intesa collection being viewed by scanning the QR code and activating the AR app.









2.6. SMART APP BANKA INTESALEO BURNETT / BANKA INTESA









This AR solution gives you a sense of space that you're not likely to get otherwise. Get around the Belville apartment complex, learn about the pubs and restaurants, stores, and more, simply by downloading the app from your respective app store.

The maps are merged into the augmented reality system, and the position of each place is displayed as a separate 3D space on the AR man

2.7. BELVILLE SMART APP

BELVILLE

KINECT 3 TRACKING

Moving in front of the Kinect sensor is detected and triggers actions that control digital applications. The angle of the arms or legs, the position of the body in space can be directly linked with virtual player thus treating the body as a real-time movement controller.

As Kinect sensor sees depth image, we can have a full understanding of the surroundings. All so-called actors or bodies that are in front of the sensor are individually tracked. This allows us to overlap virtual objects over them on the color image, as we know the depth of each camera pixel.

Kinect technology detects human body and provides us with data of the virtual body skeleton that represents virtual bones. We can use that data to understand how the person is moving in front of the sensor and to know an angle and a position of every bone in 3D space. This can then be applied to controlling interactive applications that use body movement in managing actions.

For that experience we are using **Kinect Azure** and **Kinect One**.

3.1. KINECT TRACKING PROJECTS

For these projects, we have used a top-of-the-line KINECT motion sensing technology. This includes equipment like RGB cameras, infrared projectors, and body-motion detectors all working in conjunction with either time of flight or structured light calculations to provide the most accurate overall depth perception for the end user.

Our team at the Digital Mind company has demonstrated that the limits are virtually non-existent when it comes to developing new use cases that include the use of motion tracking technology.

- 3.2 SHOPYOU WINDOW
- 3.3. INTERACTIVE DANCERS
- 3.4. VIRTUAL MIRROR
- 3.5. KINECT AR ACTIVATION
- 5.6. Delta KINECT games
- 3.7. Sport Vision Climbing
- 3.8. X-ray machine simulation

3.2. SHOPYOU WINDOW







As you approach the mirror-like surface – it lits up. You are presented with a whole collection available in store. But there is more! Our software will create a virtual avatar and allow you to try out clothes on spot, you can move around, dance around and change models and colors with a simple touch. Shopping is a social experience, you can share a photo with a friend at any time and ask for their advice.













Interactive dancer is a platform that uses Microsoft Kinect as a basis for spectacular visual experience that dancers are producing while performing in front of a motion sensor, generating a variety of effects projected in real time.

3.3. INTERACTIVE DANCERS





The Virtual Mirror allows you to try your order the same day your measurements have been taken, to confirm the choice of fabric, buttons, collar and pockets.









Chipsy activation was a synergy of different technologies into one activation where consumers where able to play a fun game and compete for the highest score on Facebook. We used and bound following technology platforms: Kinect for motion tracking, high resolution camera for Augmented Reality, Loyalty program through collection of points inside a Facebook application.

In order to compete and win prizes, consumer is asked to collect as many potato chips in a given time frame. Bar code reader is used to detect which Chipsy products are activated and based on that different amount of potato chips where falling down. Consumers where allowed to activate maximum of three products within one game. We also used AR camera to record an image of the final result of the game and that picture was associated with consumers score and shared on Eacebook

Installation was strategically positioned at Key Accounts in Belgrade and Novi Sad.

Important fact is that collecting the points for the competition is directly linked to buying the product that was used to play the game itself.

3.5. KINECT AR ACTIVATION

MARBO CHIPSY

3.6. Delta KINECT games

These KINECT games were envisioned to be a fun way for the people in Malls to get acquainted with VR tech and the services it may provide.

The game mechanic is set so the player needs to acquire as many points as possible in a set amount of time. The top 3 players were awarded valuable prizes. The KINECT device follows the movements of the player's body and, depending on the game, controls a sandwich, a plate, or a bowl with wings. A fun way to relax after an exhausting shopping session.









An interactive KINECT ONE game is envisioned to be a part of a marketing campaign for the new Adidas TERREX line of hiking shoes

The player needs to be positioned in front of the screen and by moving the hands and feet in order to climb as high as possible across the rocky mountainside.

The game is a fun way to enjoy shopping a bit more, and the monitored metrics are the height that the player has managed to reach and the time it took to reach it

3.7. SPORT VISION CLIMBING SPORT VISION

3.8. X-ray machine simulation

With the discovery of X-rays, new doors were opened in the field of diagnostic medicine, for it was now a real possibility to view the injuries of the bony tissue much clearer and adjust the treatment accordingly. The first-ever X-ray photograph taken was that of Dr. Wilhelm Roentgen's wife's hand with a ring on it. After it was deemed safe to be used for purposes of fracture diagnostics, it spread across Europe, and eventually came to Serbia in 1905. The first city to be equipped with one these state of the art devices was Sabac, all thanks to Dr. Josif Vinaver, a personal friend and associate of Wilhelm Roentgen. In honor of this millenia-changing discovery, we created an app that can show the user a real-process of the X-ray photograph of the hand with a ring, giving us a glimpse of the past and providing an important learning experience.



4. 3D SCANNING

By utilizing a set of instruments characterized by high accuracy and specialized for scanning big and small objects, we are able to transfer real-life physical artifacts into 3D assets with virtually no quality loss.

These scans can be later used for a variety of purposes, from conserving digital objects to creating an authentic VR/AR experience. The benefits of using tools of such high caliber, are the limitless possibilities in creating 3D assets from virtually any real-life object.

As for equipment, we use **Artec Leo, Artec Spider, Artec Micro** for all types and sizes of objects, and what cannot be scanned, our team of 3D artists are able to reconstruct upon request.









3D 360 4 SHOOTING

Using the 3D 360-degree technology, we are able to capture the real-life experience of the physical space.

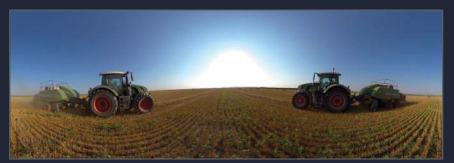
With VR technology users are able to see complete real footage in hi-resolution (up to 11k mono and 10k stereo).

For that experience we are using hi-end 3D 360 cameras like **Insta360 Pro 2** and **Insta360 Titan**.

5.1. 3D 360 SHOOTING PROJECTS



National Museum of Serbia



Al Dahra - Egypt, Romania, Serbia, USA, Morocco



EXIT Fest (2021 - 2022)



Qualifications for World Athletics 2022 - Ryan Crouser new record



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