

YouthActionNet<sup>®</sup>

# CASE STUDY SERIES

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**Iris Solutions:**

*Breaking down barriers to  
sensory therapy*

*A partnership between:*



GEORGETOWN UNIVERSITY

School of Foreign Service  
Global Human Development Program



## **Introduction**

*This is one of a series of case studies produced by students enrolled in the Global Human Development Program at Georgetown University through its partnership with the International Youth Foundation (IYF). Students enrolled in a course exploring the role of social enterprises and social entrepreneurs were paired with young leaders of social ventures identified through the IYF's YouthActionNet® program. The students were given the assignment of analyzing the venture's assets, successful methodologies, and opportunities for investment to increase impact. Through this experiential learning process, the student consultants gained hands-on experience and exposure to the needs of social enterprises. The ventures, too, benefited from student insights into their strengths, areas for growth, and recommendations for enhancing their impact and sustainability. The Georgetown practicum is part of YouthActionNet's larger efforts to partner with institutions of higher learning around the globe to integrate social change into the academic experience and career interests of students.*

## **International Youth Foundation**

*The International Youth Foundation (IYF) invests in the extraordinary potential of young people. Founded in 1990, IYF builds and maintains a worldwide community of businesses, governments, and civil society organizations committed to empowering youth to be healthy, productive, and engaged citizens. IYF programs are catalysts of change that help young people obtain a quality education, gain employability skills, make healthy choices, and improve their communities.*

[www.iyfnet.org](http://www.iyfnet.org)

## **YouthActionNet®**

*Since 2001, YouthActionNet, a program of the International Youth Foundation, has provided founders of social ventures, ages 18 to 29, with the training, networking, coaching, funding, and advocacy opportunities they need to strengthen and scale their impact. These young social entrepreneurs have pioneered innovative solutions to critical local and global challenges, resulting in increased civic engagement, improved health, education reform, economic opportunity, environmental protection, and more inclusive societies. Our work is carried out through a network of 23 national and regional youth leadership institutes that collectively support over 1,350 young social entrepreneurs globally.*

[www.youthactionnet.org](http://www.youthactionnet.org)

## **Global Human Development Program at Georgetown University**

*The Global Human Development Program of Georgetown University is home to one of the world's premier master's degree programs in international development. An innovative, academically rigorous skills-based graduate program, the Master of Global Human Development degree prepares the next generation of development professionals to work with public sector agencies, private businesses, and non-profit organizations that advance development. Through coursework, extracurricular activity, and practical fieldwork experiences, our graduates develop the insights, skills, and experiences necessary to become leaders in development and make a difference in our global community.*

<https://ghd.georgetown.edu>

## INTRODUCTION

### *Meet Ayman Arandi: Co-Founder*

For most college students, capstone projects end at the time of a final grade. This was not the case for Ayman Arandi and his partners Mohammad Na'nish and Ahmad Rabi, who designed a project that turns any transparent surface into a touch screen. This trio of young entrepreneurs took their learning from this project and launched a successful company, Iris Solutions, to bring their technology to various sectors. One of their projects dealt with developing a therapeutic tool for children with developmental disorders, which helped more than 3,000 youngsters. Ayman and his team are now looking to expand their services in global markets and significantly increase their impact.



In 2010, Ayman and his partners used US\$13,000 of their own capital to expand their immersive touch screen technology and launch Iris Solutions. They worked on a range of touch tech projects in industries as diverse as tourism, healthcare, and marketing. In 2013, they were contacted to build a “Sensory Room” commissioned by Medical Aid for Palestinians (MAP). Sensory Rooms are physical spaces used to provide therapy for people with developmental disorders. These rooms are equipped with sensory elements such as sounds, lights, and other objects to create an environment where children and adults learn to develop key vocalization and motor skills. Iris went on to install several of these rooms, but Ayman and his team saw the potential to create bigger change.

Iris Solutions is working toward revolutionizing Sensory Environment technology used for the rehabilitation of children with autism and other developmental disorders to make it more accessible and affordable for its users.

**Iris Solutions is making therapeutic technologies more affordable, accessible, and user-friendly.**

### *The Problem*

Between 2013 and 2015, Iris installed 15 Sensory Rooms in the West Bank and Gaza, serving more than 3,000 children with various developmental disorders. Iris recognized that although Sensory Rooms have wide acceptance in the field of therapy, many of its target customers (e.g., hospitals, rehabilitations centers, schools) are not equipped with these rooms. There was a gap in this sector due to the lack of specialized service providers of interactive technology. The Iris team received several inquiries to install sensory rooms but these potential clients could not acquire Iris’ service for various reasons:

**Cost:** They discovered that building a sensory room was expensive. The cost of installing these rooms ranged from US\$18k to US\$25K, which was not affordable for most clients.

**Installation:** The equipment needed in the sensory room was not easy to transport and most of the labor work was done on-site. The time it took to convert rooms into a sensory environment meant loss of productivity for the clients.

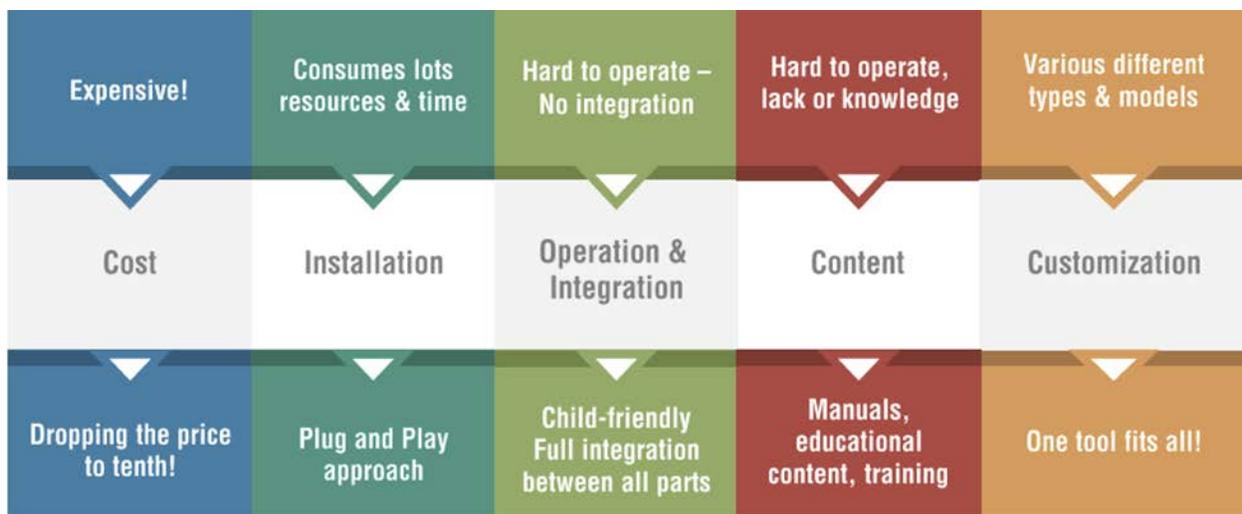
**Operation and Integration:** The operation of these rooms was not simple, leaving many customers feeling uncomfortable using them.

**Content:** These rooms had features that were specially designed to interact with the varying needs of users. To properly operate the rooms, customers required additional training.

**Customization:** The sensory room needed to be customized to fit the needs of patients with a range of disabilities. Customization contributed to additional costs that could go as high as \$100k.

The below analysis (Figure 1) shows what it would take for Iris to make Sensory Rooms available for their clients:

*Figure 1: Sensory Room Barriers*



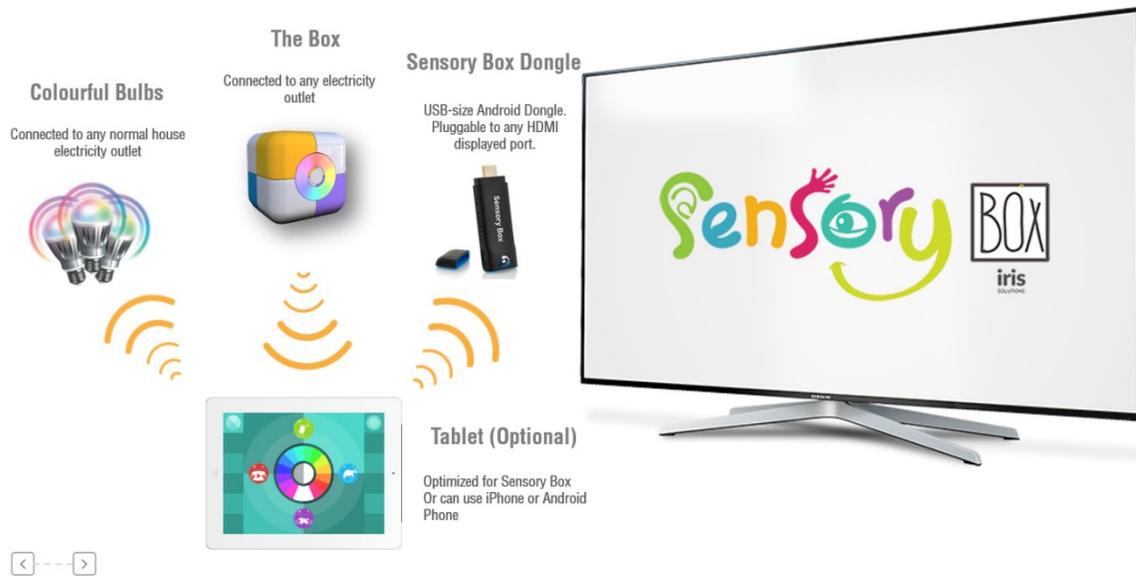
### **The Solution**

Iris set out to design a product to meet their customer's need. They wanted to design something that was affordable, easy to install, and easy to operate. After consulting with several experts in behavioral disorder, Iris built the “Sensory Box,” a technology that converts the Sensory Room concept into a portable device. It creates a similar environment as the sensory box but it's affordable for its consumers and can be altered for consumer needs.

Iris was able to do this by simplifying the Sensory Environment model and designing customizable software that controls the sensory environment. The final product consists of a combination of simple hardware that includes a USB-size dongle that connects to a TV or any other display, a set of bulbs, and a source for WiFi connection. The box is accompanied by software also designed by Iris

that is used to interact with all the equipment. This product minimizes the need for physical labor for installation and it is very user-friendly.

*Figure 2: Sensory Box Components*



### **Operational Model**

Iris advertises itself as a “leading provider for immersive technology.” Established in 2010 as a for-profit entity in Ramallah, Palestine, Iris provides a range of services in interactive touch technology, including customized interactive kiosks, floor displays, and maps. In 2013, Iris was commissioned to build its first Sensory Room in Palestine. This opportunity provided a new direction for the company and a new avenue to expand its services.

As the company gained insight and experience in Sensory Room installations, it undertook research to improve the product with the goal of making it more affordable and easily accessible for its customers. Two years later, Iris designed a prototype for Sensory Box. The revenue generated by the other interactive touch technology services that Iris offers provides the funding and resources for the Sensory Box research and development. But Iris plans to separate the Sensory Box business as a separate entity as it begins generating profits. The company is currently working on Sensory Box’s strategy and is considering setting up operations in Jordan as well as looking for international partners for manufacturing and distribution.

## **KEY ASSETS AND SUCCESSFUL METHODOLOGIES**

Ayman and the co-founders have proven themselves to be successful entrepreneurs in Palestine and neighboring markets by capturing a variety of clients and offering highly-customized products to meet their clients’ needs. Their success can be largely attributed to the talented team, their expertise in interactive touch technology and the out-of-the-box thinking. (Please see *Appendix 1: Social Business Model Canvas* for a visual representation of Iris’ key assets and activities.)

## ***Team of Experts***

Iris's biggest asset is its highly-skilled team that includes the organization's founders, who are forward thinking and committed to the company's vision. They are social entrepreneurs with a great passion for contributing toward the cause of mental health. Company CEO Ayman Arandi is the "idea guy" behind innovations such as the Sensory Box. He oversees the company's overall business and innovation strategy and is known to challenge his team to think big. Ayman also has an impressive professional network. He holds a MSc in Management, Innovation, and Information Technology. Ahmad Rabi is in charge of holding the operational and financial ends together. He ensures the company's finances are in check and their deliverables are completed. He plays a crucial role in conducting feasibility analyses of Ayman's ideas to determine if they are realistic and if Iris is up for a new step, new challenge, and new opportunities. Ahmad holds a BSc in computer engineering. As Head of Operations, Mohammad Naanish oversees activities "on the ground." A master salesman, he acquires and builds relationships with all of Iris' clients and vendors. He also makes sure that Iris maintains good relationships with its clients by meeting all their needs even if they ask for something additional and not foreseen in advance. Mohammad holds a BA in Accounting, and a Diploma in Management.

Iris just added Gabriele Tervidyte to the team as a Support Curator. Gabriele is responsible for managing the content of the Sensory Box to make sure that it brings a positive impact in the therapy process for its users. She is in charge of what colors to pop when, what sound tracks must be used on what occasions, and how different tasks should open, slide, and be dragged in order to facilitate skill development. Gabrielle has a BA in Psychology and MA in Social Policy. She specializes in Social Work and Psychology, particularly in the work with adolescents. Aside from the management team, Iris has support staff members and advisors that play a crucial role in operations.

## ***Expertise in Interactive Technology***

Ayman and the team began working on touch-screen interactive projects since Iris' inception in 2010 and have worked with a range of clients with diverse needs. They provide customized interactive solutions for their clients and their projects include interactive kiosks, floor displays, maps, and games. Through these product offerings, Iris has been able to build a healthy client base and superb reputation. It was their experience in touch screen interactive technology projects that positioned them to install the first Sensory Room in Palestine. Having worked in this industry, they have not only positioned themselves as experts in the field but have secured a consistent source of revenue. They reported US\$1 million in revenue from these services, a portion of which afforded the research and development of the Sensory Box.

## ***Sensory Box Technology***

Iris capitalized on the exposure they received in the Sensory environment market when they were commissioned to install sensory rooms across Palestine. Recognizing that the traditional model was not meeting consumer demand, they conducted market research to identify their customers' needs. Their first source of data came directly from the interested parties that were reaching



out to Iris to inquire about this technology. Through that, Iris gathered initial research and then mobilized a consulting firm to do extensive market research to determine demand. Meanwhile, they engaged experts in the field of development disorders to understand the science behind the sensory environments and how they affect children with developmental disabilities. After this extensive multi-faceted research over two years, Iris reached a technological breakthrough, which they call a “Sensory Box.”

This technology meets all the customer needs in terms of cost, accessibility, and user friendliness. It also provides unique features that set them apart from the competitors identified in their market research providing similar products. With Sensory Box, Iris has been able to introduce an innovative and affordable approach to the Sensory Environment. With Iris’ strong reputation in the Palestine market, this product is strategically placed to attract high demand and could change the face of Sensory Environment therapy.

## **OPPORTUNITIES FOR INVESTMENT**

Iris’ team consists of fine entrepreneurs who understand their potential and make calculated steps to ensure their success. Through their experience in working with various touch technology and Sensory Environment projects, they have gained valuable insights. They are now preparing themselves to increase their global presence with their cutting edge product, Sensory Box. This bold next step has required Iris to take a critical look at their physical location, their revenue stream, and their larger impact in the field of therapy for developmental disorders. (Please see *Appendix 1: Social Business Model Canvas* for a visual representation of Iris’ challenges and opportunities.)

### ***Relocating to a More Enabling Environment***

Iris has been headquartered in Ramallah, West Bank in Palestine since its inception. Being one of the few providers of interactive technology services in Palestine, it has benefited from lack of competition. It has also faced major challenges conducting business in highly charged political environment. Due to security restrictions, Iris faces many obstacles importing simple parts needed for research and development. “Goods can get stuck for several months at a time at Israeli customs,” expressed Ayman. Iris has tried different ways to navigate this tough situation such as ordering goods in small quantities to avoid scrutiny and reduce paperwork, and dividing orders into several small shipments so they look like samples. These techniques have worked for them so far but in order to meet global demand, Iris will have to find another solution.

Although the Iris team’s presence in Palestine has been a way for them to give back to their community, they are prepared to make a strategic move to meet their changing business needs. Iris engaged a consulting firm to conduct market research for the Sensory Environment in select regions and included Jordan as one of their markets. Having received positive results from this study, they are scouting for locations in Jordan where they can place their office. Their new office will serve as a central hub from which to interact with Palestine, Jordan, U.A.E., and Saudi Arabia. They have also begun looking for manufacturing partners in China where they can mass-produce their hardware. Iris has an opportunity to look for distributing partners in the market they plan to serve. They could

identify distributors of similar technology who can be their brand ambassadors in various countries. Iris could also build partnerships with organizations that work towards the cause of mental health who can spread the word about Iris' affordable solution. As the Iris team plans their growth strategy, they will have to come up with ways to market their products worldwide without increasing their overhead. A good marketing plan and partnership strategy could help achieve this goal.

### ***Developing a Revenue Stream for Immersive Technology Projects***

Iris began with a personal investment of US\$13,000 from the founders. It has since grown to US\$1M in revenue from its immersive technology projects. This revenue stream has supported operations for nearly six years and contributed towards the research and development of the Sensory Box. As Iris grows and plans to distribute the Sensory Box and other services in global markets, this revenue stream may not be enough to support its expanding operations. Iris will need to find new investments or revenue sources that can support its growth.

Iris is in the process of scouting new investors and needs to raise US\$1M to enter the global market—65% of this investment will go toward development and operations, 15% toward production of the Sensory Box, and 15% toward marketing the product. Iris' business model could be appealing to potential investors from the United States. In February 2016, the company won the Middle East and North Africa Region 1776 Challenge Cup. 1776 is a global incubator and venture fund that hosts a worldwide tournament to find some of the finest startups from all over the world.

Participating in challenges like 1776 provides an excellent opportunity for Iris to attract these investors. Although, the goal of such incubator challenges is to win the grand prize, the Iris team should be prepared for scouting other avenues of investment. Events like these attract investors, industry experts, and business-minded individuals. The Iris team could use such opportunities to network with potential clients and even business partners that could benefit their growth. They could scout new investors, at these events. In addition to that, Iris could continue to look for other such avenues, where they can make their pitch such as SXSW Accelerator, TechCrunch, 7VPD, and LeWeb

### ***Generating Awareness and Feedback***

Iris recognizes that launching the Sensory Box and offering its product and services to a global market is a major undertaking. The majority of its current and potential clients are from local markets and Iris has been able to get direct feedback from them. But when Sensory Box is mass-produced and distributed, it will be difficult to collect customer feedback. Iris will have to come up with ways to connect with customers in order to measure product impact. Iris will also be facing a challenge of educating their potential customers about their new product in order to gain acceptance in the global market. This will require not only traditional marketing but a comprehensive awareness campaign.

Iris' response to the awareness campaign is their new site Alwaan.me. Alwaan, which means colors in Arabic, will be an online portal to spread awareness about sensory-related disorders. This portal will be released in different phases, and with each phase more educational material will be added for different developmental disorders. The first phase will contain resources related to autism and will launch on April 2, 2016 (World Autism Day). These resources will include several new media formats

such as videos and podcasts. It will provide the information about health facilities available for autism. This page will also feature a section where users can engage in conversations via discussion boards in order to build community around these issues. In addition to the Alwaan portal, Iris will be launching SensoryBox.me where customers can get more information about the Sensory Box and create purchase orders. These websites will be integrated with Iris' social media platforms.

*Figure 3: Alwaan.me Objectives*



In addition to creating online resources, Iris will be conducting training workshops with teachers, health care professionals, and social workers to educate them about the Sensory Box. They will also partner with kindergarten schools and health care facilities to install their product as part of the pilot project and build awareness through that. They have also built a budget for impact analysis into their financial plan for ongoing evaluation but have not determined ways to measure the enterprise level impact. Setting aside the budget for impact analysis is a step in the right direction, but Iris still has to come up with a plan to conduct this evaluation.

## CONCLUSION

In my very first conversation with Ayman Arandi, I asked him why he chose to work on a solution for Sensory Environment therapy. He explained to me that his inspiration came from the feedback he receives from the users who benefited from this tool. He mentioned how happy it makes him to see a smile on children's faces when they are in the Sensory Rooms. This feeling of spreading happiness put Ayman on a road to discover innovative solutions to make Sensory Environments widely

accessible to people who can benefit. Ayman's altruistic motives are reflected in Iris' success thus far. In my analysis, I feel that Iris' biggest challenge would be to measure the impact of their product compared to the traditional Sensory Rooms in its beneficiaries. When Iris succeeds in having their presence felt in the global market, it will also be able to influence policies around mental health and play a much larger role in this noble cause.

## FURTHER INFORMATION ABOUT IRIS SOLUTIONS

- Sensory Room - previous version of Iris's Sensory Room: <https://vimeo.com/45939512>
- Iris Facebook Page: <https://www.facebook.com/iris.interactive.solutions>
- Iris website: <http://iris.ps/en/>
- Iris Twitter: [https://twitter.com/iris\\_inter](https://twitter.com/iris_inter)
- Iris LinkedIn: <https://www.linkedin.com/company/iris-interactive-solutions>
- Ayman Arandi's YouthActionNet profile: <http://www.youthactionnet.org/fellows/1388/>
- Media Coverage:
  - Wamda - This Palestinian startup is using touch technology to help kids affected by autism: <http://www.wamda.com/memakersge/2015/12/palestinian-startup-using-touch-technology>
  - Wamda - What I know about developing hardware and software in Palestine: Ayman Arandi: <http://www.wamda.com/memakersge/2016/01/what-i-know-about-developing-hardware-and-software-in-palestine-ayman-arandi>
  - YNet - Gaza gets first stress-relieving sensory room: <http://www.ynetnews.com/articles/0.7340.L-4441758.00.html>
  - Iris video from King Abdullah Award for Innovation and Youth Achievement: <https://www.youtube.com/watch?v=vm6gn1HEzZ8>
  - Iris competing for 1776 finals in DC: <http://iris.ps/en/2016/04/19/10091/>
  - Because – The engineers building new therapeutic tools for Gaza and beyond: <http://because.bz/technology/engineers-building-new-therapeutic-tools-gaza-and-beyond>
- More information about Sensory Rooms:
  - Interview with the inventors of Sensory Rooms: <https://www.youtube.com/watch?v=IO4bEJtUvvg>
  - American Association of Multi-Sensory Environments: <http://www.aamse.us/>
  - History of Multi-Sensory Environments: <http://www.snoezelen.info/history/>

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