Playing on Mars
Envisioning interplanetary games

INTRODUCTION

We are living in the age of Entrepreneurial Space. A myriad of new private aerospace companies continues to emerge many with proven capabilities of accessing what's beyond the Kármán line (the boundary between Earth's atmosphere and outer space) and into a new era of space exploration. Until not long ago, this was considered the exclusive domain of governments; it was deemed unimaginable nor sustainable for private companies to develop technologies capable of providing cheap and sustained access to space. Today, ironically it is the only means to escape the Earth's gravity. We are at the brink of a revolution, with the affirmation of cheap and sustained access to space, humankind will taste the unlimited resources waiting for us out there, the same resources which we are currently exhausting here on Earth. With the latter achieved, new industries will emerge and flourish, from asteroid mining to outer space colonies.

One of the leading private space companies is SpaceX, led by Elon Musk. On February 6, 2018, Musk sent his electric car a cherry red Tesla Roadster into orbit as a test payload onboard a reusable Falcon Heavy rocket. Musk is currently developing the next generation rockets that will carry people to the Red Planet as early as 2025. UAE is also seeking to be part of plans of colonizing the Red Planet. Recently the UAE government launched the "Mars Scientific City" project to build an entire city to simulate Martian conditions in a self-sustained environment in Dubai, in preparations to colonize the Mars decades from now.

With the current state of rapid development and progression to create a sustained space corridor, the need to have disciplines that will prepare us for this new domain is crucial and inevitable now more than ever, we have long passed what was once regarded as purely science fiction, and we need to start tackling what is now science fact.

BRIEF

Any intervention outside of our mothership Earth is a very risky and arduous endeavor. The risks and complications are tenfold when missions include people and have to guarantee their psycho-physical wellbeing for prolonged periods. Experience has shown in the past 50 and more years; people don't do well in cramped up "tin cans" especially in the harshness of space and in environments of microgravity, bombarded by harmful radiations, and in a state of monotonous routine. Under such extreme circumstances, monotony and boredom have been identified as serious causes of stress that can hinder the growth of space travel. As a result, the psyche is affected because of reduced sensory variety. Think of it this way: healthy human consciousness, perception, and thought can only be maintained in a dynamic environment. A state of sensory deprivation sets in with the absence of variety in our surroundings, which in turn has a negative effect.

The role of designers in preventing such stressors, or at least designing countermeasures, is crucial. How can we design and define the interactions of man and machine in the harsh environments of space in the coming decades?.

For the past several decades since humans have started to live in space, it was recognized that leisure time for people in confined environments is critical and has a stimulating effect on an astronaut's mental state and fitness, and would, therefore, contribute to the work efficiency and psycho-physiological sanity of a crew. Leisure activities were scheduled according to each mission and, an astronaut's interest as well as the psychosocial crew climate. Some of the leisure activities include video games, board games, watching movies, video-calling love ones, reading, listening or playing music, self-education, drawing, tinkering, or simply gazing upon Earth. However, when you're on Mars, a lot of these leisure activities become impossible, such as video-calling (given the time delay between earth and mars) or looking upon Earth.

DESIGN CHALLENGE

Design a game that future colonizers of Mars can play with during their free time. Choose from the below two scenarios.

A GAME DURING THE JOURNEY

Design a game to be played in zero gravity environments, for example in the spaceship during the journey from Earth to Mars.

A GAME ON MARS

Design a game for reduced gravity and barren environments, such as on Mars itself.

There are no limits to the typology of the game. Some examples could be a physical toy that relies on the environmental conditions, a video game concept that uses VR, a sports game that encourages physical activities (extreme football, space darts), etc.

IMPORTANT NOTES

It's important that your games promote the physical and mental sanity of future space travelers and colonizers. Consider games that enable astronauts to perform athletic activities, to maintain muscle capacity, bone density as well as cardiovascular health especially during lengthy space travels. It's important that you design your proposals for the environments in question. Hence some research to target your design solutions is required. (I.e., What can I do in microgravity, how's the airflow inside a spaceship, what are the volumes in question, can I play soccer on Mars, do I need a spacesuit, etc.). Your proposals could be existing games updated to be played in space, or designed exclusively for space environments. Moreover, the amount of equipment that we can take with us to space is limited, hence the ideology of doing more with less is even more welcome, how can we use some of the equipment or tools already available to us out there, and transform them into games?

SUBMISSION

You are required to submit a PDF document that contains:

-A3 (Landscape) full-page visuals in pdf format (max size 10mb) *
-A3 (Landscape) images of a prototype, model (optional)
-1 A4 (portrait) 500-word narrative, fictional or factual about your proposal
-You can also submit 1 Video (optional)

*The content of the A3's can be sketches, diagrams, photomontage, screenshots of an app, details of a product, however, the amount of text on these A3's should be limited, the goal is communicating your idea through visuals, storyboards, diagrams, and not text blocks.

DEADLINES

Please deliver all submissions by July 7, 2019, by email designchallenge@didi.ae (max. 10mb).
Finalists will be requested to present to the jurors on July 14, 2019.