



EXTREME ENGINEERING CHALLENGE 2020

Welcome to the Quinceañera of the Extreme Engineering Challenge. In 2020, we celebrate 15 years of providing challenges to our SHPE developing engineers. What amazing challenges we have shared over the years. After the many nights of fostering bedtime designs and Einstein's theories, we push the limits of reality once again. Who would have guessed from 2005 that TODAY we would have (close to) self-driving vehicles, floppy disks transformed into cloud storage, and the new era of cell phones with color screens. The revolution of the digital era has truly paved the future of a new reality.

While making an impact on the world, the titan's of the industries are also redesigning the impact their campuses have on the environment for example Google's new Sunnyvale campus, Salesforce tower, and other LEED designs are the foundation of this new sustainable future. In addition, BIG (Bjarke Ingels Group) has partnered with Google on 2 campus designs to pave the future of sustainable living such as reductions in carbon emissions, fresh water consumption and power consumption. The XEC has brought these tech giants together once again to seek cutting edge virtual reality technology to help design, develop and promote a city of the future using an open source platform. In close partnerships with high-profile architecture firms, your new Virtual Reality Design Firm will demonstrate the unknown benefits of how cutting edge software can render the future. Your firm will also show how industries can utilize virtual reality software to not only design the city but also emphasize your firm's ability to integrate virtual reality within the city's top industries.

For the first time in Extreme Engineering history, there is no limit in the materials that can be utilized by your team. The only limitations are what you set for yourselves, however your team is bound to 24 hours and a virtual \$15 billion dollar budget. This is the most extreme competition to date. With the digital meeting rooms you must learn how to utilize every member's extreme expertise to help design and promote your Virtual Reality Design Firm's product to the investor panel. Collaborate with your team to make all the appropriate designs, renderings, and developments to blow away the competition that has their eyes set on your prize.

You will be pitching your individual ideas/concepts among several team members, but as a team, you will have to decide how unique your ideas are and how difficult it will be to implement or complete a given concept(s). Take some calculated risks and establish your spot on the top! Teams who are able to bring functional realities to life will reap the benefits. Companies with differentiated products will be rewarded. Product designs that bring together several newly invented technological breakthroughs will excite. Those of you who can bring it ALL together will win it all!