The Virtual Reality (VR) market has raised expectations extremely high. It is already worth several billion US dollars per year and growing rapidly, with millions of headsets due to be sold in coming years.

Three main companies lead this new market: HTC Corporation, Oculus VR, which was bought by Facebook in 2014 for $2 billion, and Sony Playstation.

They think this market has enough potential to invest billions of dollars to get ahead of their competitors. Most other major manufacturers also want good market shares, including Microsoft, Intel, Google, AMD, Samsung, Huawei, Archos and Alcatel.

Winning in this market is now HTC’s all-or-nothing strategy. The HTC Vive VR Head-Mounted Display (HMD) is aimed at saving HTC from collapse. Vive VR can be used in different sectors, including gaming, entertainment, health, automotive, retail and education. It promises a premium VR experience.

This very well-designed system uses established components, including two 1200x1080 pixel AMOLED displays manufactured by Samsung, for a total resolution of 2160x1200 pixels. These are the main parts of the over 2850 electronic and mechanical components System Plus Consulting has identified in the headset. There are also several MCUs, FPGAs, processors, interface ICs, MEMS sensors, photodiodes, and a camera module including an Omnivision Global Shutter Motion Detector.

Based on a complete teardown of the HTC Vive VR Headset, this report is a detailed physical, technology and cost analysis.
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**ANALYSIS PERFORMED WITH OUR COSTING TOOLS SYSCOST+ IC PRICE+ AND DISPLAYS PRICE+**

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Wilfried is Senior Project Manager for reverse costing analyses at System Plus Consulting. Since 1998, he has been in charge of costing analyses of electronic systems and integrated circuits. He has significant experience in modeling the manufacturing costs of electronics systems and components. Wilfried holds a master’s degree in microelectronics from the University of Nantes, France.

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