

X-Ray Stereoscope (XSS)

Executive Summary

Entrepreneur: Prof. S. Epshtein

Industry: Roentgenography

Project Status: Pre-seed

Business Description: Today, all the roentgenography is presented only in two-dimensional representation. The introduction of the suggested method of stereoscopy will make it possible to see the diagnosed objects in 3 dimensions (close to real). This will subsequently increase the protection from intervention, increasing the safety of examination or other supporting procedure, as well as the power and effectiveness of diagnostics, reducing the possibility of "flaws" in doctor's work.

Product Description: The principle innovation of the proposed technological solution is introducing into practice the X-ray diagnostics of the dimensional stereoscopic perception of most objects of X-ray diagnostics of human and animal organ and parts of body that will bring the following positive moments: 1) it increases the power of X-ray diagnostics; 2) the device increases the interference protection of the method reducing the "flaws" in medical practice; 3) the design of the proposed XSS makes it a universal diagnostic device.

The proposed X-ray machines can gradually replace all operating classic X-rays machines or it is possible to update them according to this unique solution. Another advantage of the XSS is a complete keeping of traditions and methods of examination and methods of the medical personnel accumulated within the varying diagnostics with turning on the human ability to binocular vision.

Applications: The proposed XSS method can be used in various applications: in orthopedic, angiovascular and cranium surgery, in general examination, that need X-ray observation, like therapeutic observation, mammography, pediatrics, surgery, oncology, etc.

Market Opportunity and Competition: In 2000 the world total market of medical equipment was around \$75 billion, with tendency of 2,7% of growth yearly. Currently more than 2,000,000 people are employed in this sphere. The world production is devoted between 350-400 manufacturers. Most significant achievements were made by Siemens (Germany), Picker, General Electrics (USA), CGR (France), Philips (Netherlands), Watson (England), Toshiba, Hitachi Shimadzu (Japan), Medtechnics (Russia).