

RESEARCH SOLUTION - POSITIONING SYSTEM FOR NEONATES DURING HEAD EXAMINATIONS

Pearl Technology offers customized solutions for research oriented institutes and clinics in terms of placement, positioning and fixation of patients.

BACKGROUND

The Connectome Neonatal System was developed as a joint project by Jo Hajnal, Centre for the Developing Brain & Department of Biomedical Engineering, St. Thomas Hospital, KCL London, U.K. and RAPID Biomedical to consistently gain high image quality when examining babies during head exams. This system is being used for the European Research Council funded "Developing Human Connectome Project". For this project, Pearl Technology successfully developed a solution for the ideal positioning of neonates during head examinations with the Connectom Neonatal System.



PROJECT OVERVIEW

The Assignment

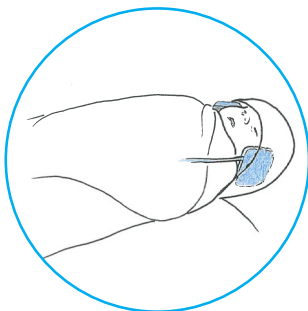
Developing a positioning system which allows to conduct head examinations with neonates. These examinations with the Connectom Neonatal System take place at St. Thomas Hospital, KCL London.

Key Challenge

To develop a positioning system in very small dimensions which facilitates head examinations with neonates in the Connectome Neonatal System. The system allows an easy adaptation to the individual anatomy of the newborn and leads to decreased motion artifacts and thus to more reliable results.

Solution

The positioning system, consisting of ear and neck parts, offers a gentle head immobilization, provides an additional support of the neck region and allows to smoothly tilt the neonate's head. Chambers filled with EPS pearls provide a gentle, even and stable immobilization throughout the entire exam.



WHAT OUR CUSTOMERS SAY...

« I have been impressed by the dedication to detail and technical competence of Pearl Technology AG. Their core technology is so simple but so effective. I think it is fair to say that we would find it hard to deliver our project at anything like the success rate that we have achieved (>90% completed examinations) without Pearl Technology's contributions.



Joseph V Hajnal PhD, Professor of Imaging Science, King's College London