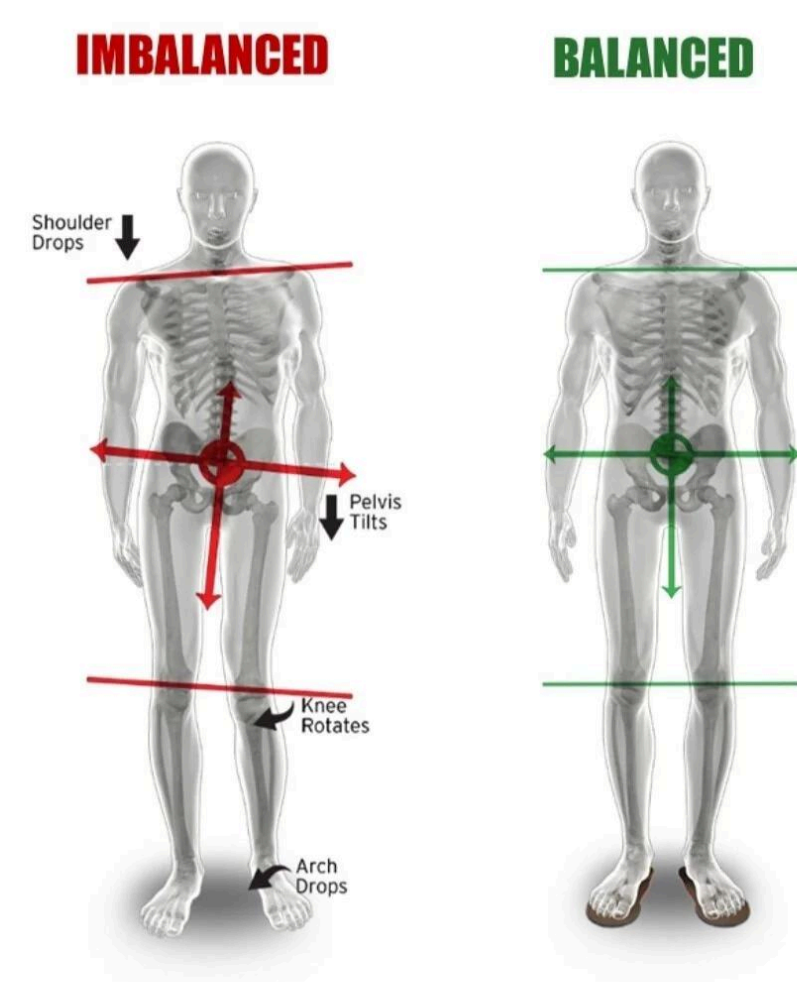


Lodz University
of Technology

DEVICE FOR MEASURING FEMUR DISPLACEMENT AND METHOD OF MAKING ORTHOPEDIC MEASUREMENTS DURING A SURGICAL PROCEDURE TO CORRECT A DAMAGED HIP

Research problem

Over 2.5 million hip replacement surgeries are performed annually, of which about 10% result in leg length discrepancy (LLD) greater than 10 mm.



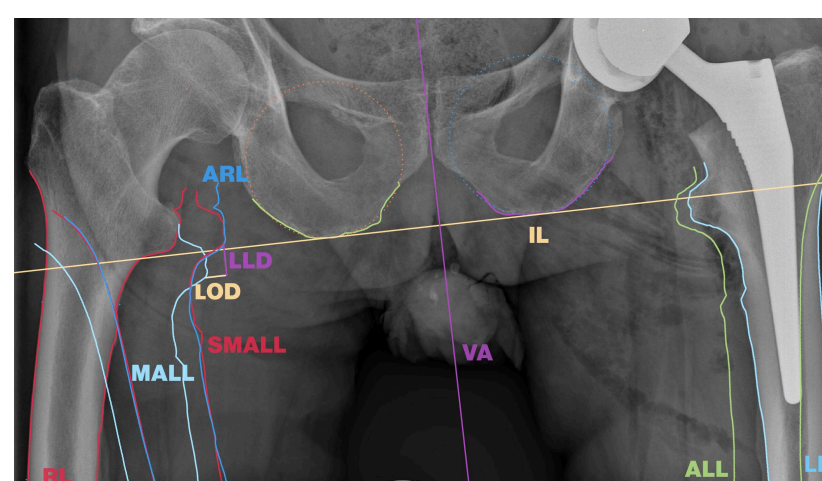
Solution - NaviFast 6D

NaviFast 6D is a single-use measurement arm invented by Lodz University of Technology and Robotic Medical Solutions Ltd. Fully validated, patent-protected, high-precision (1.4 mm) solution to one of orthopedic surgery's most persistent challenges.

This surgeon-friendly system was designed to replace classical navigation and significantly reduce LLD during hip replacement surgeries.



Single-use measurement arm NaviFast 6D



LLD Calculator App / lldcalc.com

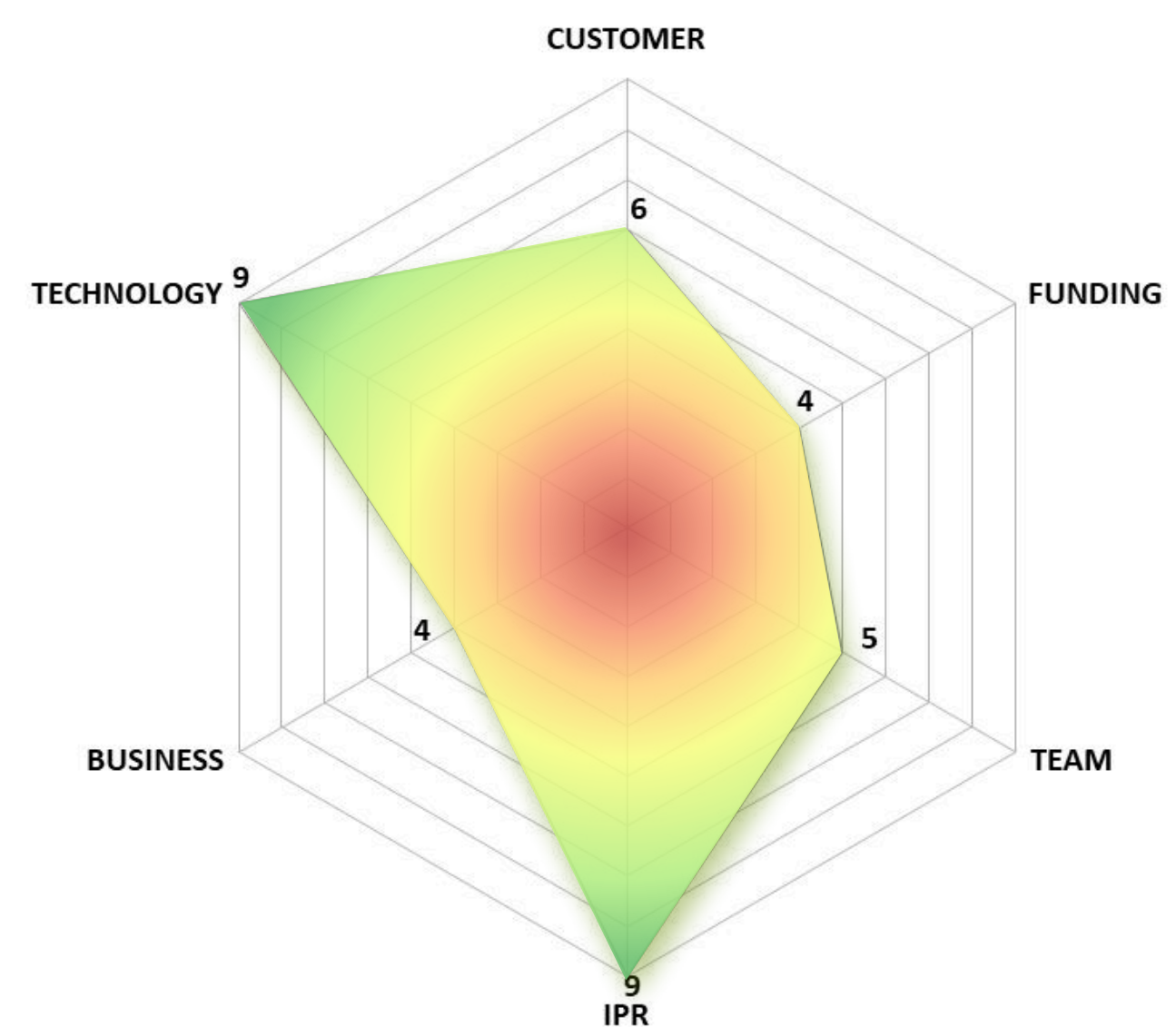


Successfully completed clinical trials



NaviFast 6D with medical equipment

Readiness Levels



Impact

Assuming that NaviFast6D will be implemented in only 1% of hip replacement procedures, the projected annual revenue from NaviFast6D sales is approximately \$12 million.

Expectations

- Establishing partnerships with at least three U.S. medical-innovation entities,
- Preparing marketing materials and commercialization strategies for the U.S. market,
- Securing approximately \$400,000 in funding to achieve CE certification,
- Preparing a scalable product for EU, U.S., and global deployment.

Core team

Lodz University of Technology

Professor Leszek Podśedkowski Ph.D., D.Sc.

Medical Robotics Researcher

leszek.podsedkowski@p.lodz.pl

Robotic Medical Solutions Ltd.

M.Eng. Janusz Joński – CEO, Electronics Engineer

M.Eng. Piotr Rakowski – CTO, Mechanical Engineer

Intellectual property

Poland nr PL 228801 B1; Europe nr EP 3 261 586 B1;
Spain ES 2 877 503 T3; Japan nr 6651549 B2;
USA nr US 10.624.711 B2

Funding

European Funds

National Centre for Research and Development (NCBR)

Grant number POIR.01.01.01-00-0290/21-00



TOP 1000 INNOVATORS of POLAND in SILICON VALLEY
Dec 8-12, 2025



Ministry of Science and Higher Education
Republic of Poland

