

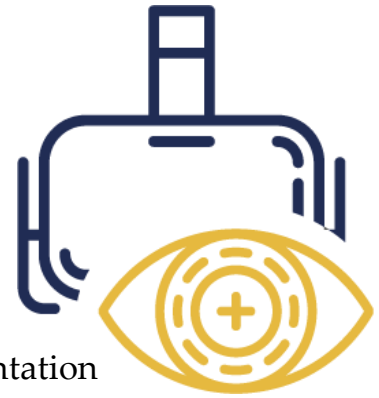
ARVR

MEPS (Mobile Ecosystem Pervasive Sensing Unit)

Company Name: BlueBridge Technologies

Funding: Contracted Research & Development

Project Title: SensAR – an investigation into the implementation of an AR solution for an engineering-based application.



Profile of Company

BlueBridge Technologies is a custom medical software and technology company based in the Citywest Business Campus in Dublin. They are a world-class supplier of innovative product development engineering and technology consulting.



Problem to Be Solved

BlueBridge Technologies have developed a bespoke Android application that applies a hue filter to physical objects to identify possible surface defects on said objects. BlueBridge Technologies approached TSSG to:

- Investigate hardware options including technical specifications of available devices.
- Identify most appropriate solution option – including device technical requirements and limitations.
- Document, design and implement a proof of concept AR adaptation of the BlueBridge Technologies' Android application for the target device.



How Gateway Delivered Solution for Industry

Following meetings with BlueBridge Technologies, TSSG conducted a desk-based research study into the current state of the art technology including an identification of possible devices with an accompanying exploration of Technical Specifications of the devices with discussion of the reported limitations of each device pertaining to the use case agreed upon with the client. The study also included research into absorption of IR on varying surfaces as well as AR spatial mapping on cylindrical objects. This expanded upon the research into technical specifications as it examined practical features that are of crucial importance to the use case. Following this, TSSG conducted a gathering of requirements for the design of the AR version of BlueBridge's application for the identified target device. TSSG then developed a proof-of-concept version of the AR program for the chosen device using BlueBridge's algorithm.



Impact for the Company

BlueBridge Technologies were provided with the following:

1. A comprehensive report identifying:
 - The technical requirements for an AR version of their Android application.
 - Identification of the most suitable hardware devices currently available for the application.
 - Design requirements for the proposed AR application.
2. A proof-of-concept version of the AR application for the chosen device utilising their algorithm