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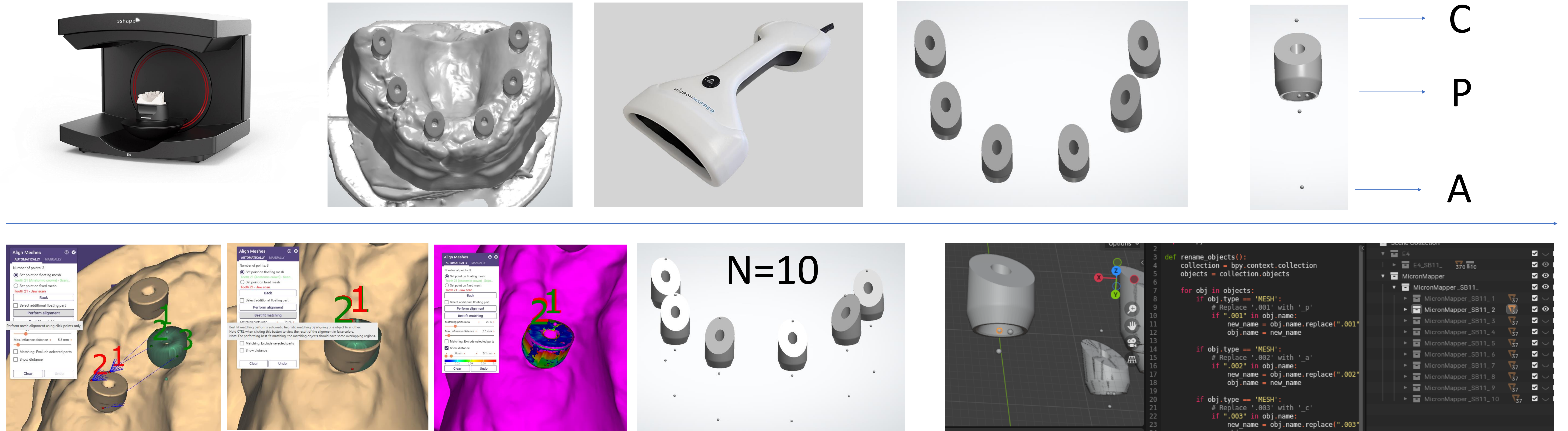
Introduction

The photogrammetry scanner is an advanced imaging technology designed for full-arch dental cases, enabling the quick and accurate capture of high-resolution 3D digital models of a patient's complete dental arch. This non-invasive method replaces conventional molds, enhancing patient comfort, and providing precise data for treatment planning, ultimately improving the overall patient experience. Precision and accuracy are crucial factors in determining the success of treatments. This study aimed to evaluate the impact of two different scanners and the positioning of implants on the accuracy of a complete arch edentulous model.

Conclusion

Within the constraints of this study, it can be concluded that the scanner and implant positioning in the arch have a significant impact on accuracy.

Methods



Results

The data were subjected to Kruskal-Wallis analysis, followed by pairwise comparisons with Bonferroni correction (significance level of 0.05). The results indicated that precision and trueness were influenced by the choice of scanner ($p < 0.001$), and the implant position affected the photogrammetry scanner alone ($p < 0.01$). The bench scanner demonstrated the lowest deviation values for trueness (10.2 – 14.6 μm) and precision (9.52 – 19.5 μm).

