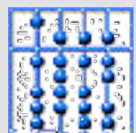


PAARTI: Development of an Intelligent Welding Gun for BMW

PIA 2003, Tokyo, Japan
10.7.2003

Christian Sandor, Gudrun Klinker
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Technical University of Munich
Department of Informatics

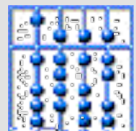


Stud Welding in Experimental Vehicle Construction



Christian Sandor
(sandor@in.tum.de)

Development of an Intelligent Welding Gun
PIA 2003, Tokyo, Japan



Design Space for an AR-based Solution

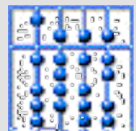
Equipment:

- Display (D)
- Sensor (S)
- Markers (M)

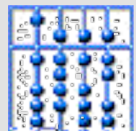
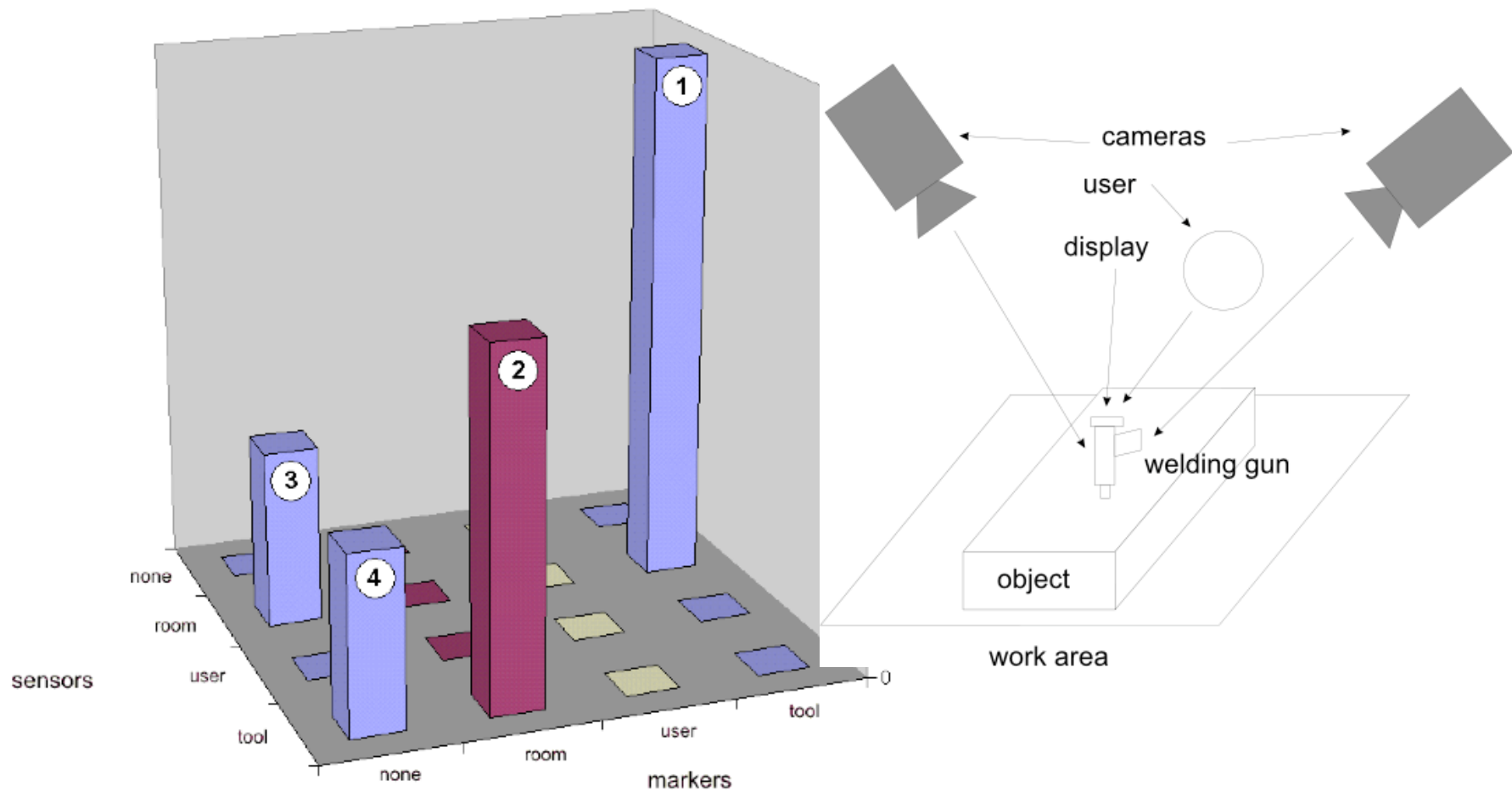
At 4 Positions:

- Unplaced
- Room-based
- User-based
- Instrument-based

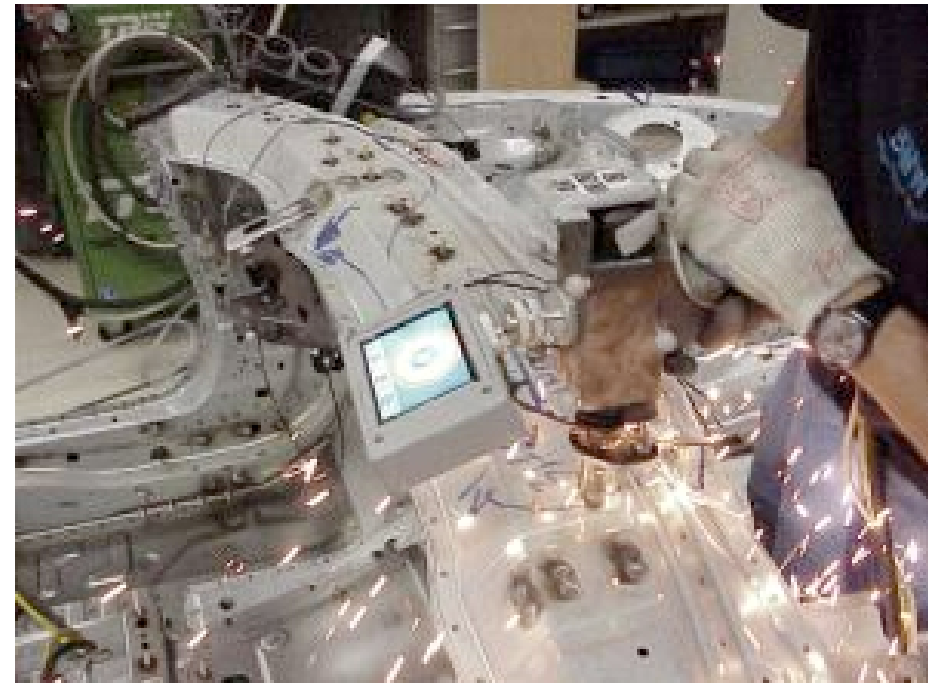
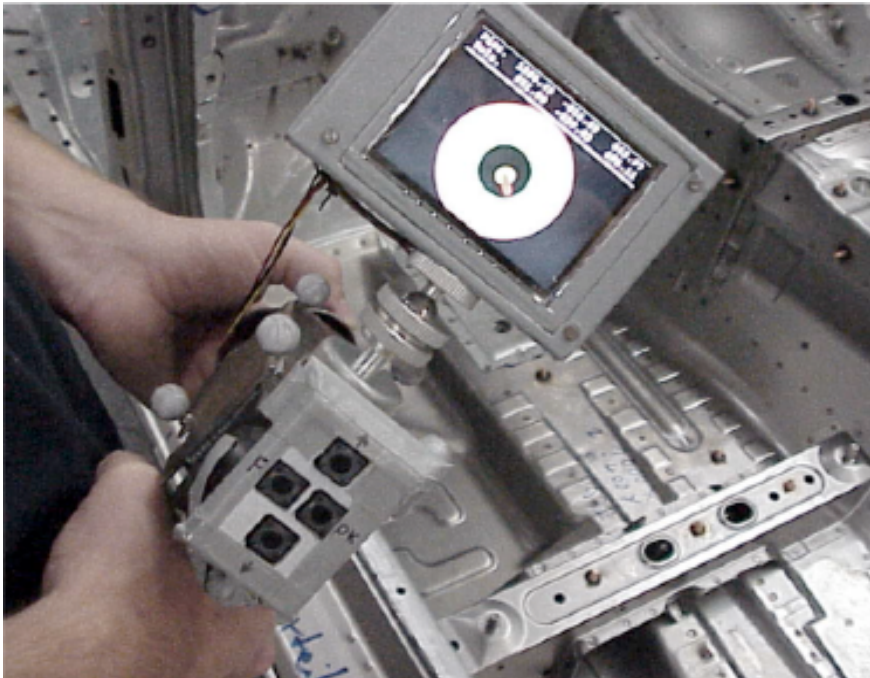
$S \times M \times D = 4^3 = 64$ potential solutions



Instrument-based Setup

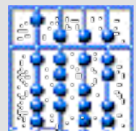


Intelligent Welding Gun - Photos



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Further Information

- Collaborators:

- TUM: Florian Echtler, Fabian Sturm, Hesam Najafi
- BMW: Kay Kindermann, Joachim Stilla, Jörn Trilk

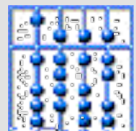
- Paper in:

Virtual and Augmented Reality Applications in Manufacturing, Ong S.K and Nee A.Y.C, eds., Springer Verlag 2003

- Web site:

<http://www.augmentedreality.de>

- Projects overview
- PAARTI



End of Talk

Please ask your questions!

質問をどうぞ！



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