



The European Coordination Hub for Open Robotics Development



ECHORD++ Experiments Call II Kick-Off

Experiment Presentations

Palma de Mallorca, Spain

3 May, 2016





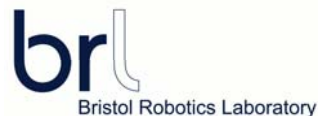
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Adaptive automated WEEE sorting 1: battery extraction (AAWSBE1)

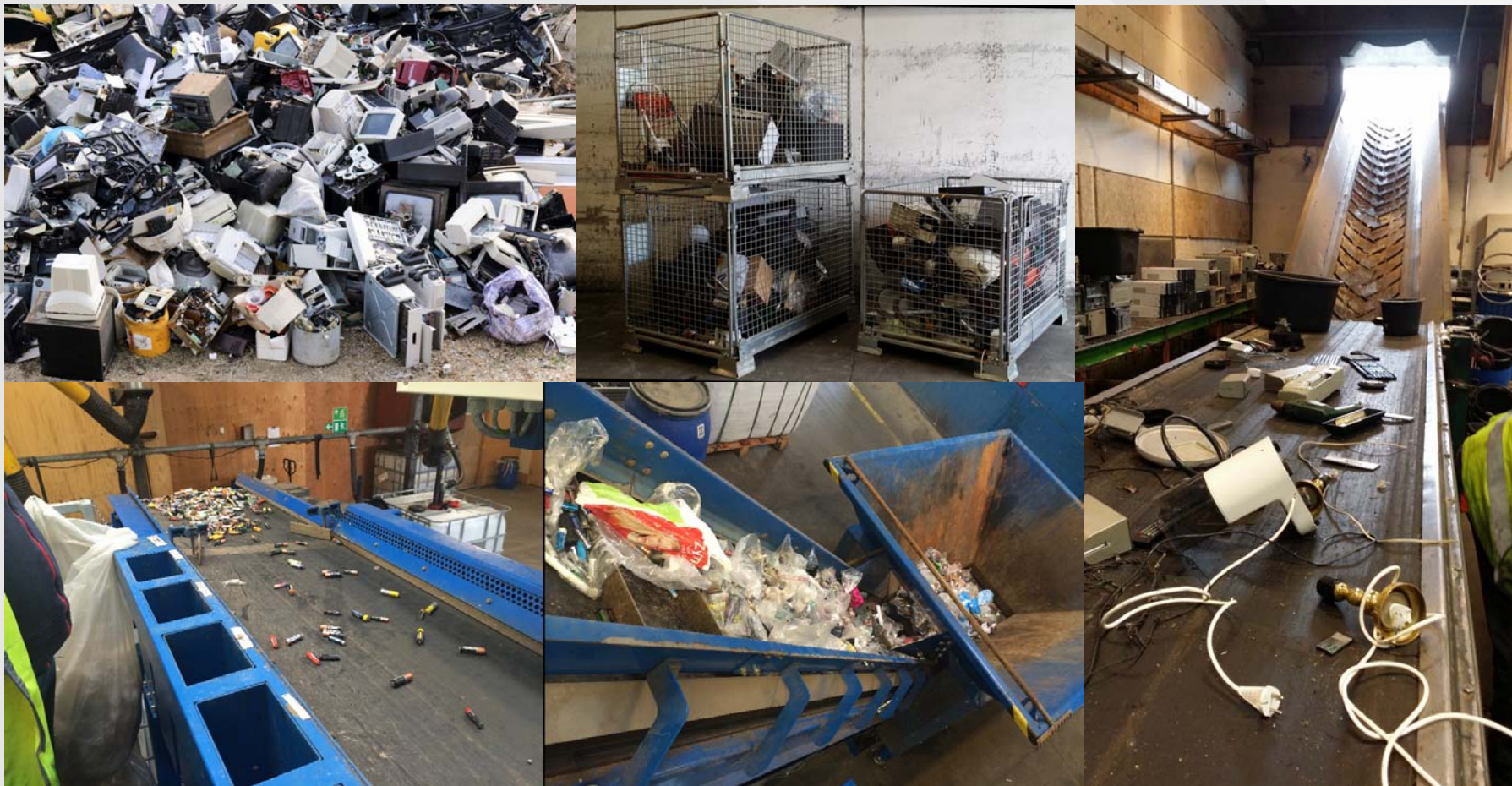
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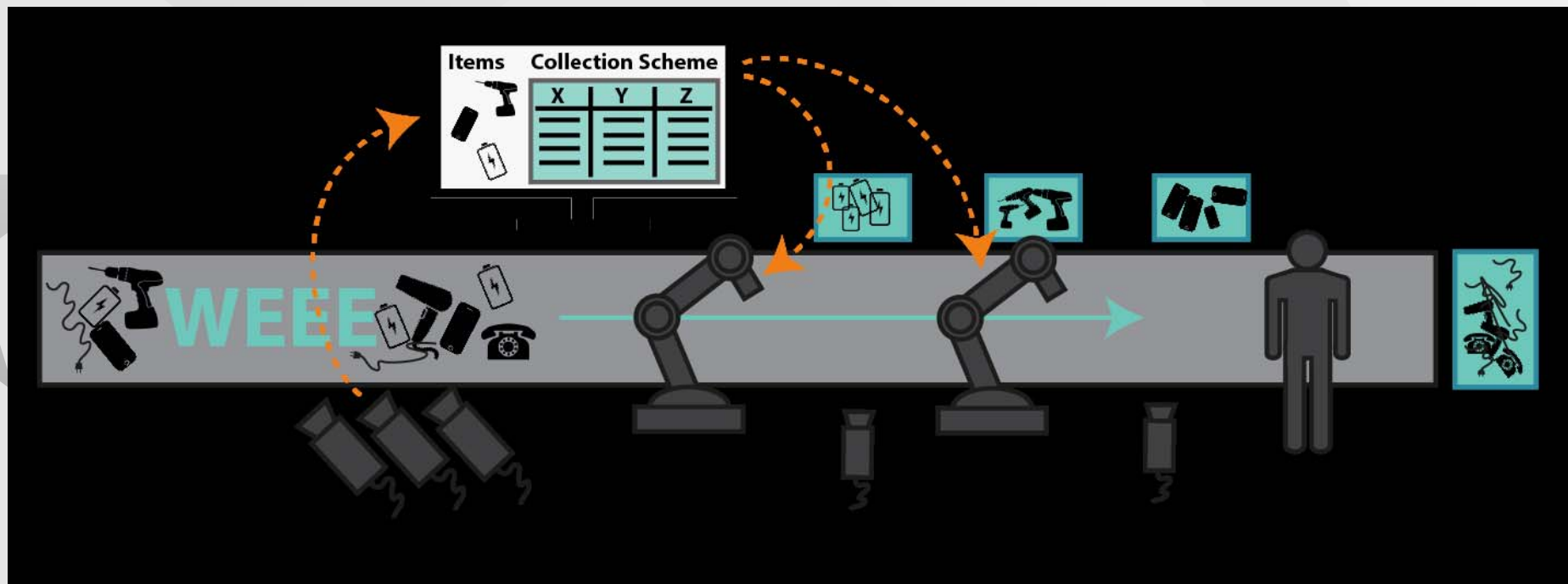
Brief Experiment Description

- Working prototype robotic sorter with Fast matching in 3D using a mixture of deep learning and conventional machine vision to locate in real electronic waste streams – case study: batteries
- Successfully picking value/market-based prioritized random objects from amongst debris despite settling.



Novelty/Objectives

- Sorting waste in clutter, robotic „cherrypicking“
- Manual dirty labour -> Robotic conveyor picking with cameras and value/experiencebased load balancing
- Cognitive Recognition using a combination of deep learning neural and conventional, tracking displacement



Impact

- More batteries recovered and recycled to meet political demands
- Transfer to other waste sorting. Hazardous and valuable waste alike
- Transfer to other domains - Recycled toys, industrial packaging/depalletizing, slaughterhouses, Green houses

