

# Scientific Work Short Paper

## Feasibility Study - SmartWarehouse

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**Abstract**—In this short paper the object detectors *You Only Look Once* and *Single Shot MultiBox Detector* are compared for precision, reactivity, training and inference behaviour and examined for their potential for industrial use. The background scenario of the Smart Warehouse offers live video data of a drone with goods in a warehouse, which are to be classified and localized in real time. In the future, this should make it possible to carry out inventories and inventory analyses of a warehouse in a time- and cost-efficient manner conserving resources.

The goal of this feasibility study is to find out whether the Smart Warehouse scenario is technically feasible. In addition, the focus is also on the object detectors themselves, their differences in architecture, behavior and how well they are generally suitable for industrial application scenarios.

### I. INTRODUCTION

### II. RELATED WORK

### III. ARCHITECTURE OF THE SMARTWAREHOUSE SCENARIO

### IV. EVALUATION

### V. RESULTS

### VI. CONCLUSION

### REFERENCES

- [1] I. Newton, *Philosophiae naturalis principia mathematica*, J. Societatis Regiae ac Typis J. Streater, 1687.
- [2] K. Mombaur, Using optimization to create self-stable human-like running, *Robotica* 27 (2009) 321–330. doi:10.1017/S0263574708004724.