

DLM-Semesterprojekt 2019

Vorlesung DLM

Rahmenbedingungen

- 2.12.2019: Projektlabor
- 9.12.2019: Projektlabor
- 16.12.2019: Projektlabor
- 13.12.2019: Projektlabor
- 4.01.2020: Abgabe des Berichts
- 4.01.2020: 10:45 12:45 Uhr (L112)

DLM-Semesterprojekt 2019

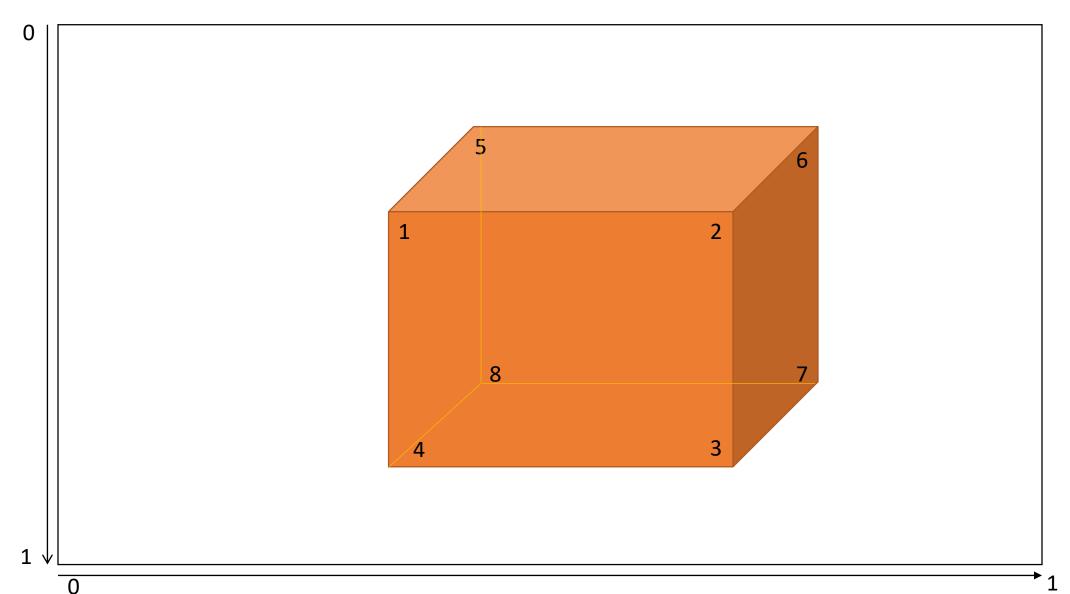
• Bestimmen der 3D-Boundingbox eines Roboters



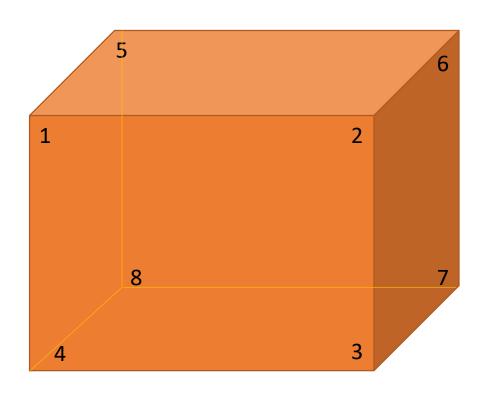
Literatur

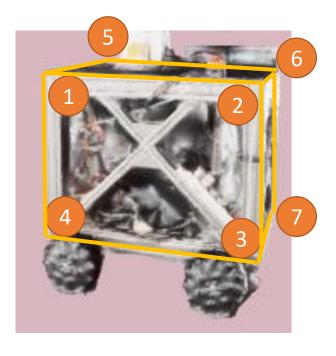
- Tremblay, Jonathan, et al. "Deep object pose estimation for semantic robotic grasping of household objects." arXiv preprint arXiv:1809.10790 (2018).
- Tekin, Bugra, Sudipta N. Sinha, and Pascal Fua. "Real-time seamless single shot 6d object pose prediction." *Proceedings of the IEEE Conference on Computer Vision and Pattern Recognition*. 2018.

Corner IDs of the Cuboid

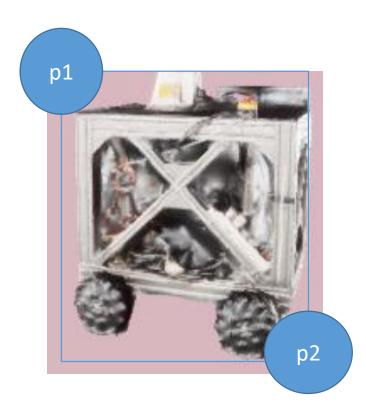


Corner IDs of the Cuboid (3D)





Corner IDs of the Cuboid (3D)



Source and Target DataFormat

```
Bilddaten: png-Bilddatenformat
Target: Json-Text-Format
Zusammenhang zwischen Bilddaten und Target:
      image00001.png, image00001.json
      "class": "ESMRoboter",
      "3dBoundingBox": [ x1 y1 x2 y2 x3 y3 x4 y4 x5 y5 x6 y6 x7 y7 x8 y8 ],
      "2dBoundingBox": [px1 py1 px2 py2]
```

Verzeichnisse

- D: data/dlmWS19/project/synthetic
- D: data/dlmWS19/project/scan
- D: data/dlmWS19/project/real