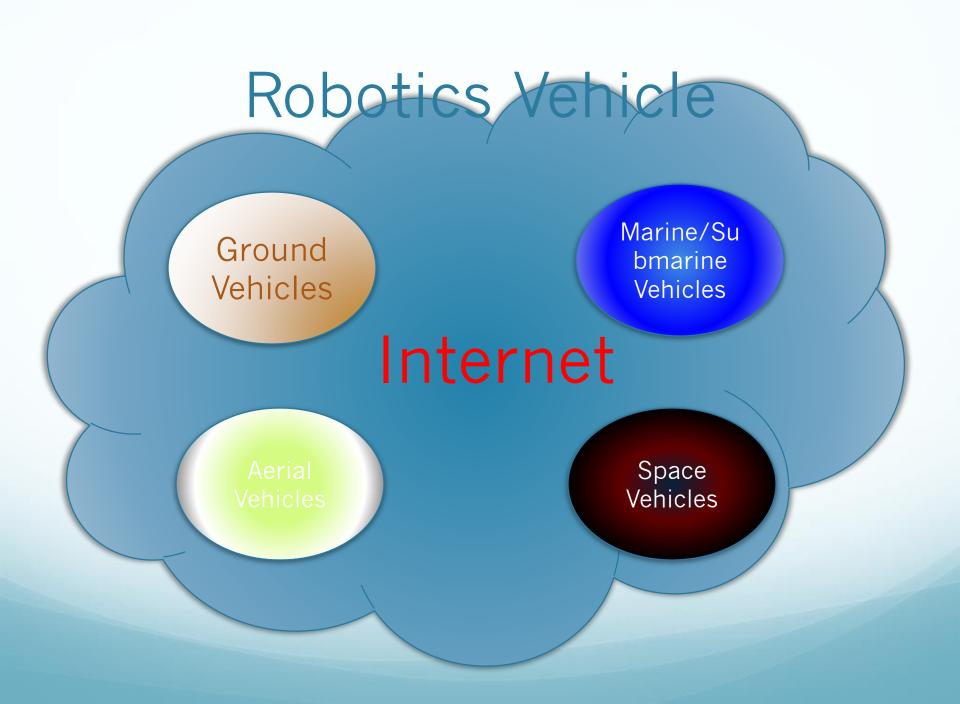
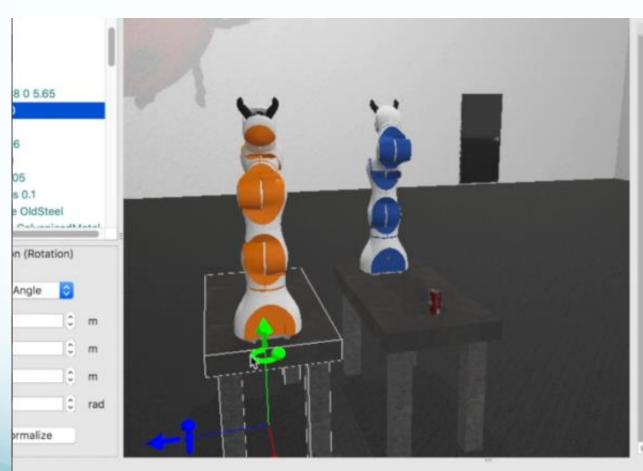
Recent Topics on Robotics Vehicle and Its Application

Dr. Ir. Endra Pitowarno, M.Eng 24-08-2020 PENS Robotics webinar series









```
49 void open_gripper(
50 wb_motor_set_post_on(mot
51
    wb motor set position(mot
52 }
53
54 void close_gripper() {
    wb motor set torque(motor
56
    wb_motor_set_torque(motor
57 }
58
59
   int main(int argc, char **a
60
    wb robot init();
61
62
     for (int i = 0; i < MOTOR
63
       motors[i] = wb robot ge
64
65
    while (true) {
66
       wb motor set position(m
67
       passive wait(0.5);
68
69
70
       // prepare for grasping
       wb motor set position(m
71
72
73
74
75
76
77
78
79
80
81
       wb motor set position(m
       open gripper();
       passive wait(2.0);
       // align gripper with t
       wb motor set position(m
       passive wait(2.0);
       // grasp the can
       close gripper();
       passive wait(0.5);
82
0.3
       // move the arm un
```







Examples: Recently published articles from Robotics and Autonomous Systems.

- <u>Estimation of body direction based on gait for service robot applications</u> October 2020, Ayanori Yorozu | Masaki Takahashi
- A novel odor source localization system based on particle filtering and information entropy October 2020, Hongbiao Zhu | Yibo Wang | Chengjin Du | Quan Zhang | Weidong Wang
- A novel path planning methodology for automated valet parking based on directional graph search and geometry curve October 2020, Zhaobo Qin | Xin Chen | Manjiang Hu | Liang Chen | Jingjing Fan
- <u>Visual place recognition using directed acyclic graph association measures and mutual information-based feature selection</u> October 2020, Jurica Maltar | Ivan Marković | Ivan Petrović
- Range-based target localization and pursuit with autonomous vehicles: An approach using posterior CRLB and model predictive control October 2020, Nguyen T. Hung | N. Crasta | David Moreno-Salinas | António M. Pascoal | Tor A. Johansen
- <u>Collective navigation of a multi-robot system in an unknown environment October 2020, Ertug Olcay | Fabian Schuhmann | Boris Lohmann</u>
- Advanced mapping robot and high-resolution dataset September 2020, Hongyu Chen | Zhijie Yang | Xiting Zhao | Guangyuan Weng | Haochuan Wan | Jianwen Luo | Xiaoya Ye | Zehao Zhao | Zhenpeng He | Yongxia Shen | Sören Schwertfeger

Latest Trends in Industrial Robotics

https://www.plantautomation-technology.com/articles/latest-trends-in-industrial-robotics

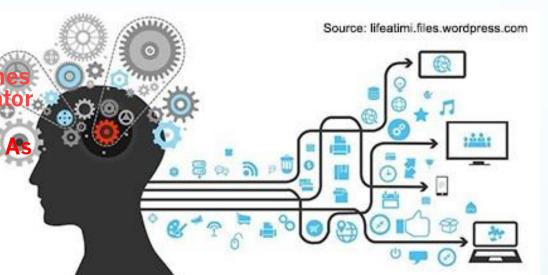
 Adoption Of Industrial Internet of Things (IIoT) Technology

 Big Data Analysis Becomes A Competitive Differentiator

 Industrial Cyber security A: A Priority

 Open Automation Architectures Will Be Implemented

 Collaborative Robots Will Continue To Grow In Popularity



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