News Release

November 30, 2017

Tier IV Updates *Autoware*, Open-Source Software for Autonomous Driving, for Pioneer's 3D-LiDAR

   Tier IV, Inc. (Tier IV) has updated *Autoware*, their open-source software for autonomous driving, to support Pioneer's 3D-LiDAR driving space sensor. This was achieved by adding a new software driver that manages sensor signals from Pioneer's 3D-LiDAR in *Autoware*. Leveraging the new software driver, Pioneer's 3D-LiDAR is now widely available with *Autoware* for research and development of autonomous driving technology.

   Autoware is the world's first open-source software for autonomous driving, which was jointly developed by Nagoya University, Nagasaki University, National Institute of Advanced Industrial Science and Technology, among others. As it is capable of constructing an autonomous driving system in combination with existing vehicles and sensors, it has been adopted by car manufacturers as well as other manufacturers, universities and research institutes.

   3D-LiDAR is a sensor that can precisely measure the distance to a remote object and detect the size of an object. It allows the shape of an object to be grasped, making it an indispensable device and the key to autonomous driving. Aiming to start mass production in 2020 onward, Pioneer is developing a high-performance, compact and low-cost 3D-LiDAR sensor. It started supplying samples of 3D-LiDAR in September, 2017 to car manufacturers, ICT−related companies and others in Japan and overseas.

   Moving forward, Pioneer will promote autonomous driving-related development by supplying samples of 3D-LiDAR to the companies and research institutes adopting *Autoware*, aiming to make contributions to the early realization of autonomous driving.

About Tier IV
   Tier IV is an academic startup company that provides products and services for autonomous vehicles. Currently more than a hundred companies all over the world are adopting Tier IV's solutions built on top of *Autoware* to develop autonomous vehicles and/or their components. Through the provision of flexible solutions built on top of *Autoware*, Tier IV contributes significantly to open innovations of autonomous driving technologies.
http://www.tier4.jp/en/