

**DIGITAL Hearts Receives Contract from JVC KENWOOD to Conduct Field Operational Tests
and IoT Tests for Car Navigation Systems
- Supporting Quality Enhancement of IoT-enabled Devices in Automobile Industry -**

DIGITAL Hearts Co., Ltd. (hereinafter referred to as “DIGITAL Hearts”), subsidiary of Hearts United Group Co., Ltd, is pleased to announce that it has conducted field operational tests and IoT (Internet of things) tests for car navigation systems, which are produced by JVC KENWOOD Corporation (hereinafter referred to as “JVC KENWOOD”).

Following the prevalence of IoT, there have been increasing demands for software testing from diverse perspectives in automobile industry. IoT technology enabled controlling of in-vehicle devices from smartphone applications, distribution of music and video content, map data, real-time traffic information and weather reports and recording and managing of log data, through connecting a smartphone to in-vehicle devices, such as car navigation systems. Functions of in-vehicle devices have been becoming complicated further.

Under the situation, making full use of long accumulated know-how, DIGITAL Hearts has been providing tests for software used in automobiles, including unit tests of car navigation systems and car-smartphone connectivity tests, in order to respond to the IoT trend in automobile industry. The Company has been also delivering driving test services through ZEG Inc., a group company established in 2015. Through these efforts, DIGITAL Hearts has developed its own business base to support quality enhancement in automobile industry.

Our Group’s efforts and performance were highly acclaimed, and DIGITAL Hearts received a contract from JVC KENWOOD to perform field operational tests and IoT tests for their car navigation systems.

Car navigation systems manufactured by JVC KENWOOD, which have high-precision and high-brightness displays and smartphone-like usability, have been highly rated by users.

Under the contract, DIGITAL Hearts carried out multiple devices tests using over a hundred of smartphones and other tests including tests of data connectivity between smartphones and in-vehicle devices, in addition to field operational test to check various functions, i.e., route search, data displaying and GPS.

DIGITAL Hearts will support quality enhancement of services newly generated through IoT application in automobiles and autonomous driving technology development, by conducting driving tests and delivering debugging services for software used in automobiles.

[Examples of software tests for automobiles performed by DIGITAL Hearts]

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| <p>Example (1): Image processing software for ADAS</p> <ul style="list-style-type: none"> ■ Details of software Software that automatically processes image data required for developing autonomous driving technology ■ Details of tests Verified various functions using video images filmed by drive recorders (e.g., capability of accurately identifying the traffic light color and humans) | <p>Example (2): Authoring tool for UI production</p> <ul style="list-style-type: none"> ■ Details of software Software to produce user interface for in-vehicle devices ■ Details of tests Conducted consulting regarding test design and performed tests of various functions based on the test design |
| <p>Example (3): Application for preventing car accidents</p> <ul style="list-style-type: none"> ■ Details of tests <ul style="list-style-type: none"> • Driving tests by different types of drivers • Examination of safe driving scoring and ranking functions • Operational verification of drive recorders | <p>Example (4): Application for obtaining information on traffic jams and traffic regulations</p> <ul style="list-style-type: none"> ■ Details of tests <ul style="list-style-type: none"> • Accuracy check of GPS • Consistency check of voice guidance • Connectivity and compatibility tests among various devices |

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| Profile of DIGITAL Hearts Co., Ltd. | |
| DIGITAL Hearts URL | : http://www.digitalhearts.co.jp/ |
| Date Established | : April 19, 2001 |
| President & CEO | : Jun Yamamoto |
| Headquarters | : 3-20-2 Nishi-Shinjuku, Shinjuku-ku, Tokyo |
| Business activity | : Provision of comprehensive debugging services |

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| Profile of Hearts United Group Co., Ltd. | |
| Hearts United Group URL | : http://www.heartsunitedgroup.co.jp/ |
| Date Established | : October 1, 2013 |
| President & CEO | : Eiichi Miyazawa |
| Headquarters | : 6-10-1 Roppongi, Minato-ku, Tokyo |
| Business activities of the group companies | : Debugging business, media business, creative business and other businesses |