

Playing tic-tac-toe with a drone? Children in Dutch Hospital play game with world's first autonomous indoor drone developed by Blue Jay, which navigates using technology from Philips Lighting

Submitted by: Ketchum

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Eindhoven, the Netherlands – Philips Lighting (Euronext Amsterdam ticker: LIGHT), a global leader in lighting, today announced the first application of an autonomous, indoor drone that uses Visible Light Communication

(http://www.lighting.philips.com/main/systems/themes/led-based-indoor-positioning.html?origin=9_global_en_mme_ips) (VLC technology) from Philips Lighting to navigate. The drone, developed by Blue Jay (<https://www.bluejayeindhoven.nl/>), was demonstrated at Maxima Medisch Centrum on 15 June 2017.

Blue Jay's first autonomous, domestic drone goes beyond serving you a coffee (<https://www.youtube.com/watch?v=XUaMI28-Jdk>) and can play a game of tic-tac-toe with children who communicate with the drone through hand gestures. Additionally, the drone can pick up and deliver objects to a location to assist the less mobile.

The drone uses VLC technology

(http://www.lighting.philips.com/main/systems/themes/led-based-indoor-positioning/indoor-positioning-partner-program?origin=9_global_en_mme_ips) Philips Lighting, enabling it to pinpoint its location and navigate and act autonomously. This technology enables ceiling lights to act like an indoor GPS and transmit their location through a modulation of the light which is imperceptible to the human eye, but detectable by smart devices such as drones. The wireless operation between the drone and its ground station is made possible by communication technology (<http://www.nxp.com/applications/automotive/secure-vehicle-architecture/v2x-communications:V2X-COMMUNICATIONS>) from NXP.

Notes to editors:

- Philips Lighting has visualized drones and droids serving customers in its 2030 Smart City Life virtual reality video (<https://www.youtube.com/watch?v=jOnSbxVRdOA>)
- The first autonomous drone has been developed by Blue Jay, which established the world's first Drone Café. The temporary café had drones picking up and delivering items to tables, navigating by VLC. Partners of Blue Jay are TU/E, NXP, Philips Lighting and Fourtress.
- The camera on the drone does not record so no personal data is collected.
- Philips VLC is privacy protected and will not ask nor store any personal data. Each light fixture is using one-way transmission of a luminaire ID or code to the drone using VLC.

For further information, please contact:

Philips Lighting Media Relations

Anne-Marie Sleurink

Tel: +31 6 52 59 63 81

Email: anne-marie.sleurink@philips.com

About Philips Lighting

Philips Lighting (Euronext Amsterdam ticker: LIGHT), a global leader in lighting products, systems and

services, delivers innovations that unlock business value, providing rich user experiences that help improve lives. Serving professional and consumer markets, we lead the industry in leveraging the Internet of Things to transform homes, buildings and urban spaces. With 2016 sales of EUR 7.1 billion, we have approximately 34,000 employees in over 70 countries. News from Philips Lighting is located at <http://www.newsroom.lighting.philips.com> and on Twitter via @Lighting_Press.