

A robot that hops.

maxon brushless frameless DC motors are used in a semi-autonomous prototype that can hop upstairs.

A robot that can balance and move on two wheels is being developed by a team of students at ETH Zurich. Named the Ascento, it is a bi-pedal robot that adapts to different environments and terrains with the explicit purpose to hop upstairs. Similar to a Segway the centre of gravity is above the axis thus the robot can balance on two wheels and move, as long as it is powered by a controlled device. Equipped with sensors the Ascento can 3D scan a room and calculate the required height and length of jumps to take. Powered by two maxon EC 90 flat brushless frameless DC motors in the wheels, the motors give high torque and precise control that allow a jumping and balancing action, such as that of landing on a narrow step. maxon deliver the rotor and stator separately without an output shaft. This gives the researchers the flexibility to integrate the DC motors into the application and joint structure without compromising on space. Each motor is driven by a compact EPOS4 module motor controller. The potential for the prototype is in building inspections that are at risk of collapse or on fire, for example.

For more information on brushless frameless DC motors for robotic joint applications please contact maxon motor Australia tel. +61 2 9457 7477.

Length of this press release: 238 words

The media release is available on the internet at: www.maxonmotor.com.au



The maxon brushless frameless EC90 DC motor in the Ascento © maxon motor

maxon motor Australia Pty Ltd

Unit 1, 12-14 Beaumont Road

Mt Kuring-Gai NSW 2080

Tel: +61 2 9457 7477

Fax: +61 2 9457 8366

info.au@maxonmotor.com

www.maxonmotor.com.au

Twitter [@maxonmotoraust](https://twitter.com/maxonmotoraust)