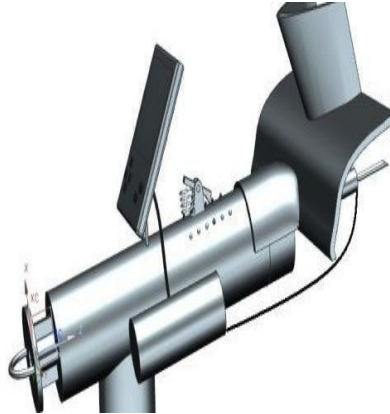




## Innovative Device Makes Tracheotomies Faster and Safer



Researchers of the School of Industrial Engineering of the Universidad Politécnica de Madrid (UPM), in collaboration with the Universidad Autónoma de Madrid (UAM), have patented an innovative device able to minimise the risks associated to emergency tracheotomies and the time needed to perform planned tracheotomies.

By combining mechanical and drilling devices with medical imaging elements and information management, it is now possible to adapt the surgery to the physical conditions of the patient.

Applicable to both adults and children, this system enables prompt and effective localisation of the patient's trachea. Additionally, the incision is performed automatically, creating a fixed airway that can facilitate future surgeries.

The main functionalities of the new device are:

- establishing neck position,
- identification of the tracheal air column,
- adequate patients data diagnosis,
- preload adjustment according to the shot aim,
- cut and incision to open an alternative airway,
- incision dilatation and maintenance of the airway with the support of electrical and air power.

Currently in the development phase, the design is being assessed through the Medtronic Eureka platform.

It is hoped that apart from being used in surgery, the new tracheotomy device could become an element of public health security present in public places, alongside the AED defibrillator devices currently available to the general public.

Source:

[AlphaGalileo](#)

31 January 2014

Published on : Fri, 31 Jan 2014