



The Volocopter

by e-volo GmbH

Florian Reuter | NASA ODM Workshop | Arlington, VA | March 9th, 2016

VOLOCOPTER

Link to the video



Below is the **link to the video** that was presented during the workshop:

<https://www.youtube.com/watch?v=YkiyiSdZzXk>

The Volocopter will revolutionize urban mobility



Revolutionary simplicity in piloting, unprecedented safety and absence of emissions



Simple

- » Automatic flight stabilization
- » Operation of VTOL¹ via single joystick
- » Significantly reduced piloting skills required

Safe

- » Multiple redundancy in all critical components and networks
- » Significant reduction of human errors
- » Full aircraft emergency parachute

Green

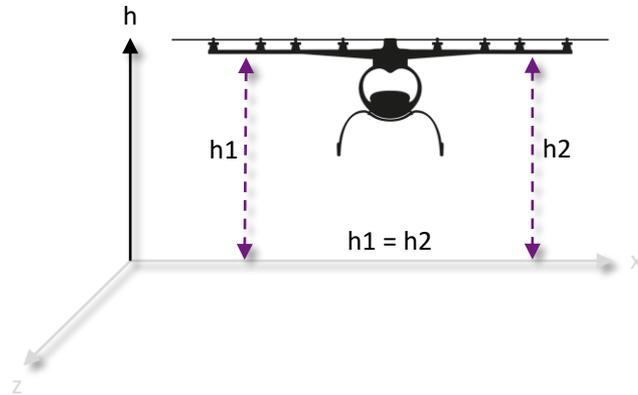
- » Purely electric
- » Significantly reduced noise pollution

The Volocopter already masters a host of fully automated maneuvers

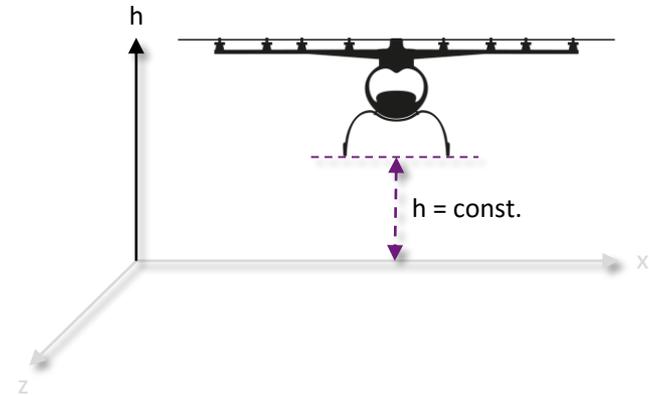


Simple: Integrated technology features

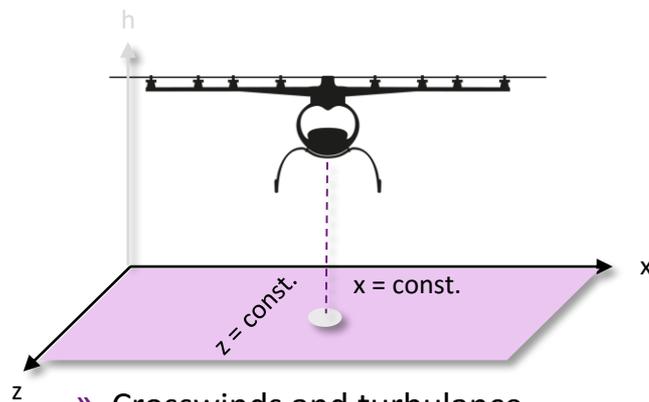
Automatic Attitude Control



Automatic Altitude Control

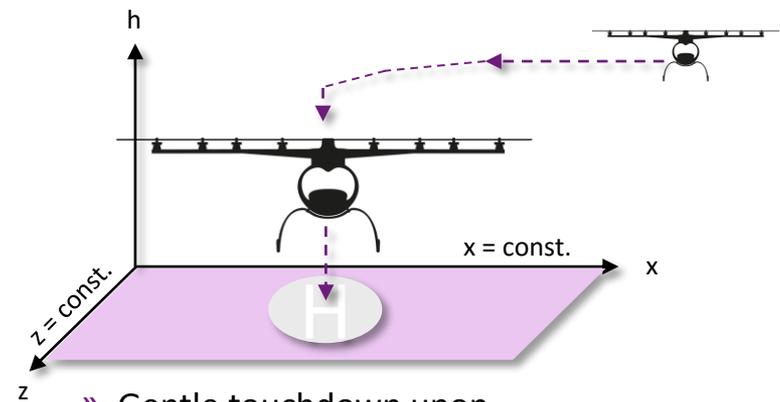


Automatic Position Hold



» Crosswinds and turbulence automatically compensated

Automatic Landing



» Gentle touchdown upon pilot command

Aviation authorities have granted 'permit-to-fly' - first Volocopter sales planned for 2017



Upcoming activities

February
2016

Receipt of 'permit-to-fly'
for the VC200



Certification process

- » Final decision on aircraft class (existing vs. new)
- » Elaboration of construction, operation and training requirements

Technical development

- » Manned test flight program
- » Final software code review
- » Power unit optimization
- » Preparation for series production
- » Launch of marketing and distribution activities

Planned
for 2017

Receipt of 'Type
certification' for the VC200

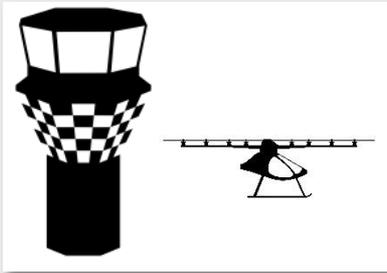
- » Type certification as German UL aircraft
- » Start of production and delivery
- » Geographic expansion of certification and commercial activities

We now commence our 'manned test flight program'

The Volocopter enables new use cases in urban mobility

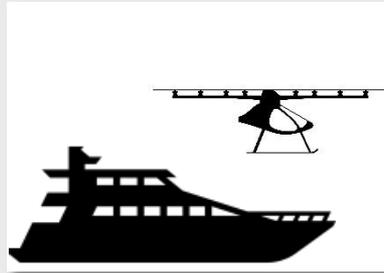


Private Ultralight



E.g. Flight enthusiasts

Private Helicopter



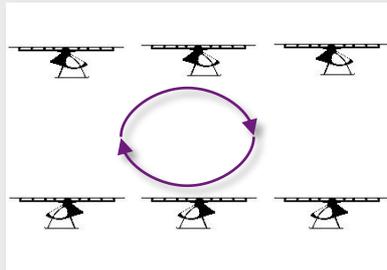
E.g. Private yacht tender

Emergency helicopter



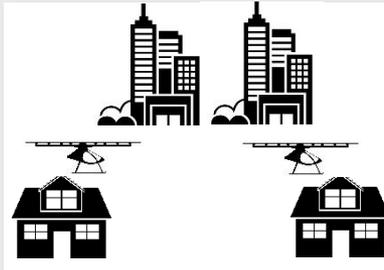
E.g. Private Swiss Rescue Service

Air shuttle



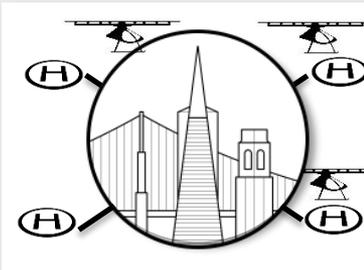
E.g. Air Shuttle over Bosphorus in Istanbul

Personal Aerial Vehicle



E.g. Simpler licensing allows urban air travel by individuals

Personal Aerial Transportation System¹⁾



E.g. On-demand commuter network in Silicon Valley

¹ Personal Air Transportation System; cp. to EU project MyCopter by Max Planck, ETH, KIT, DLR et al.

Wit technology advancing at a breath-taking speed, we view regulation as our biggest long-term challenge



Current challenges

Fundraising

- » Raising new funds in the coming months
- » Ongoing discussions with investors worldwide

R&D projects

- » Welcoming R&D projects in manned and unmanned space, if funded by third party

Power unit

- » Electric propulsion still challenging due to capacity and thermal issues
- » Selection process for suitable serial hybrid unit initiated
 - » Diesel motor
 - » Gas motor
 - » Gas turbine
 - » Fuel cell

Regulatory environment

Near-term

- » Geographic expansion of type certificate as a German ultralight aircraft (Europe, USA, Asia)

Mid-term

- » Reduced pilot licensing (and vehicle) process
- » Regulation on “mass air transport corridors” in highly populated areas

We aim to build a personal aerial vehicle for all of us – and be allowed to use it!

Thank you and stay tuned!





www.volocopter.com

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