Indoor Drones

for society, but who exactly?

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Final Bachelor project

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bluejay

Healthcare?

vitalis woonzorg groep

Requirements	Specsheet
Autonomous flights	Autonomous
Fly safely	It flies safely
Transport objects	Can transport weights of 500gram max.
Communicate with people	Sound output Emotion output
Social engagement	Speech recognition Face recognition Emotion recognition

Still needed to:
- fly approximately silent
- offer the care people need

Health patient 1

disabled but self-reliant

Requirements	Specsheet
Autonomous flights	Autonomous
Fly safely	It flies safely Avoid obstacles frequently
Transport objects	Can transport weights of 500gram max.
Communicate with people	Sound output Emotion output
Social engagement	Speech recognition Face recognition Emotion recognition
Provide vision to device	Can provide vision

Still needed to:
- get objects wherever located
- fly approximately silent
- be low priced

Health patient 2

disabled and not self-reliant

Requirements	Specsheet
Autonomous flights	Autonomous
Fly safely	It flies safely Avoid obstacles frequently
Transport objects	Can transport weights of 500gram max.
Communicate with people	Sound output Emotion output
Social engagement	Speech recognition Face recognition Emotion recognition

Still needed to:
- offer the care people need
- fly approximately silent
- be low priced
- Grab objects on the ground

Logistics?

máxima
medisch centrum

Requirements	Specsheet
Autonomous flights	Autonomous
Fly safely among a lot of people	It flies safely Avoid obstacles frequently
Transport samples to lab	Can transport weights of 500gram max.
Transport with track and trace	Carry along sensors
Listen for execution of tasks	Speech recognition

Still needed to:
- fly approximately silent
- save time
- communicate with doors and elevators

Patient guiding?

máxima
medisch centrum

Requirements	Specsheet
Autonomous flights	Autonomous
Fly safely	It flies safely Avoid obstacles frequently
Communicate with people	Sound output Emotion output
Comfort people	Speech recognition Face recognition

Still needed to:
- fly approximately silent
- fly for more than an hour at least
- guarantee 100% accuracy

Fire safety?

Requirements	Specsheet
Autonomous flights	Autonomous
Fly safely	It flies safely Avoid obstacles frequently
Detect heat violation	Carry along sensors
Provide vision for brigade	Can provide vision
Communicate with people	Sound output Emotion output

Still needed to:
- navigate inhabitants outwards
- fly in smoke zone
- fly in dark zone
- communicate with doors
- shut down power supplies
- be high temperature resistant
- detect people

Agriculture?

Agriculture

inspecting harvest in greenhouses

Requirements	Specsheet
Autonomous flights	Autonomous
Fly safely	It flies safely Avoid obstacles frequently
Communicate vision to other people or systems	Can provide vision
High quality vision	Can transport weights of 500gram max.

Still needed to:
- fly stable

Education?

Requirements	Specsheet
Automous flights	Autonomous
Fly safely	It flies safely Avoid obstacles frequently
Transport objects	Can transport weights of 500gram max.
Communicate with people	Sound output Emotion output

Still needed to:
- fly approximately silent
- communicate with products
- offer easy coding(e.g. Scratch)

What do you think?

This booklet is established and based upon the interviews I had with many people. I want to thank everyone who participated in/and supported this research. Without their effort I did not get to these insights about indoor drone technology. This is a first step to the future.