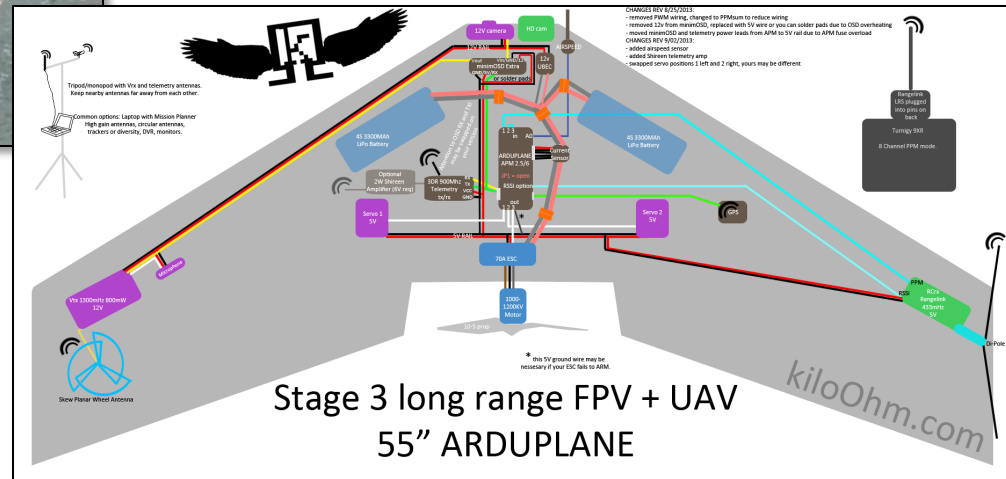
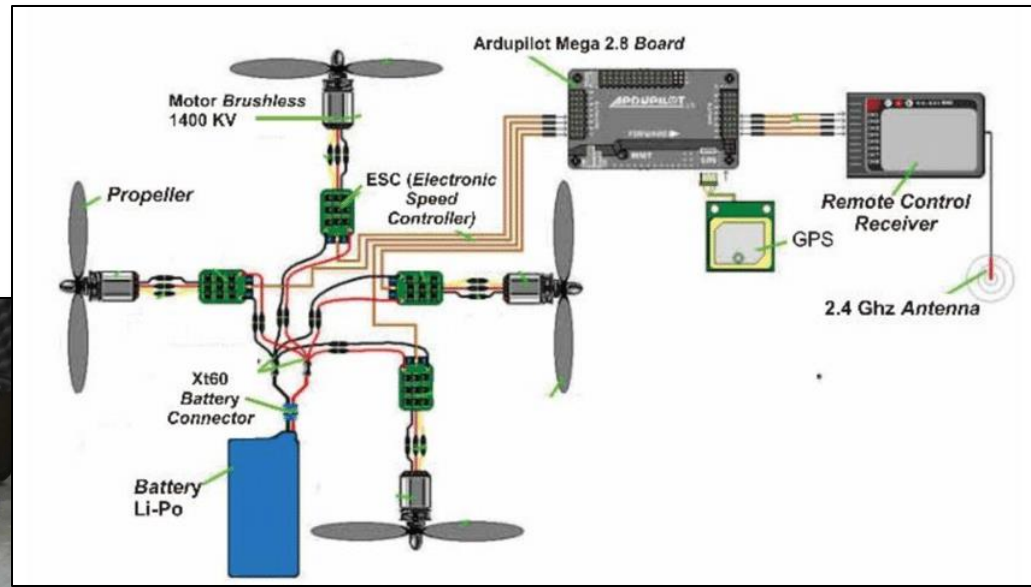
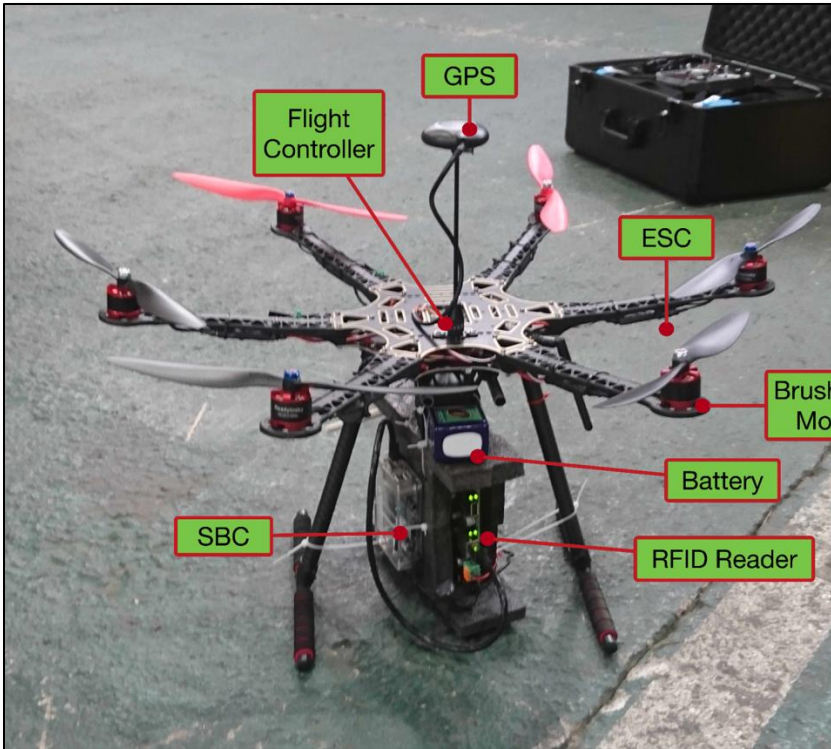




# Drones: on innovation and technology

**Jerome Jouffroy, PhD, Professor**  
**head of Drone Mechatronics / SDU Defence Technology**  
[jerome@sdu.dk](mailto:jerome@sdu.dk)

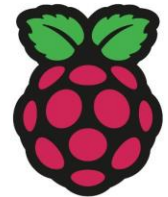
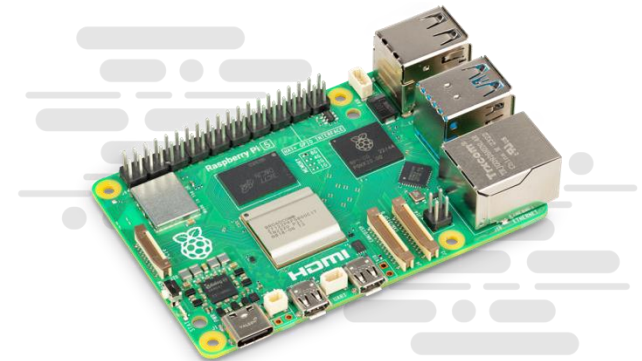
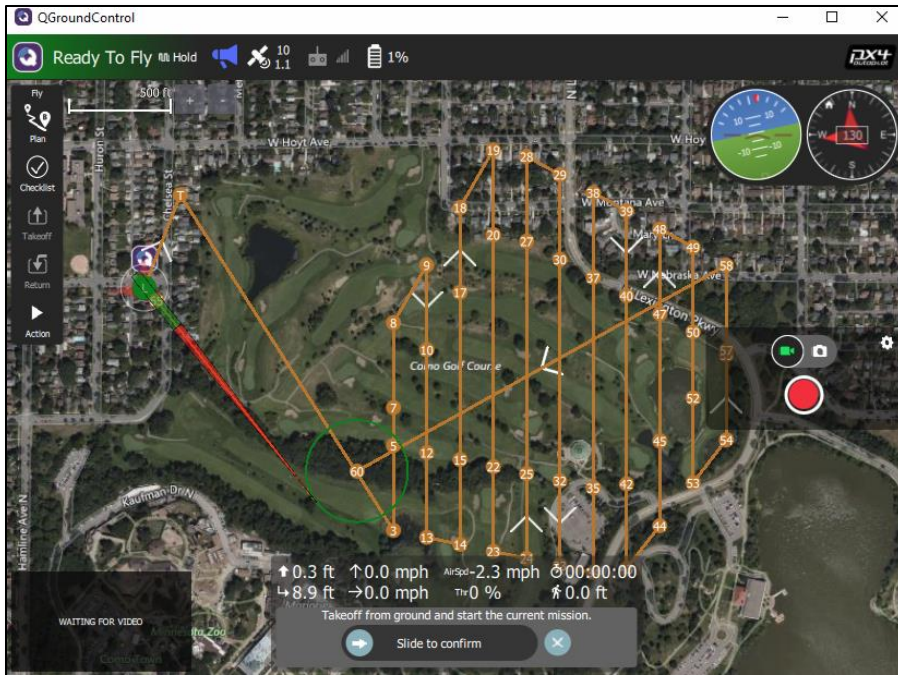
# Inside drones



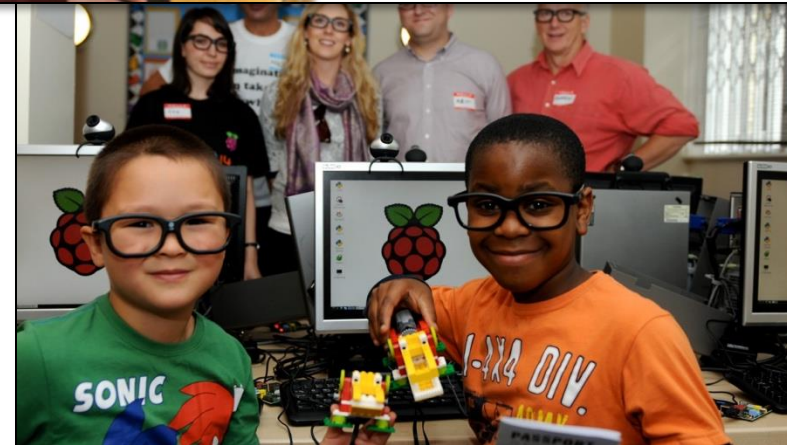
# Software and autonomy



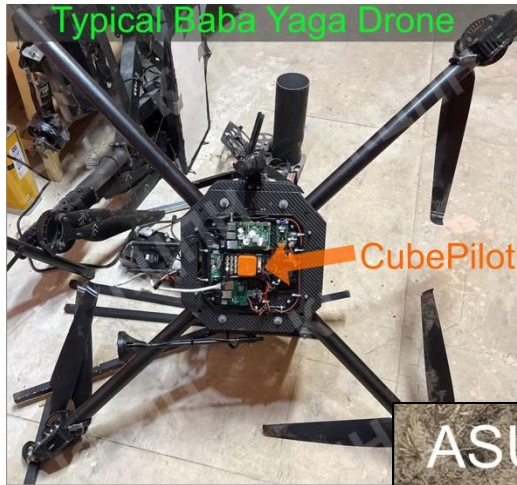
# ARDUPILOT



Support the  
**Raspberry Pi  
Foundation**



# Examples of non-civilian applications



Typical Baba Yaga Drone

CubePilot



ASU Valkyrja

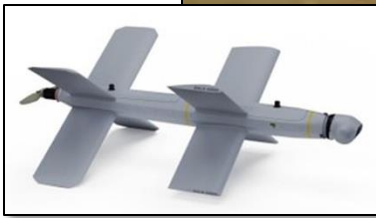
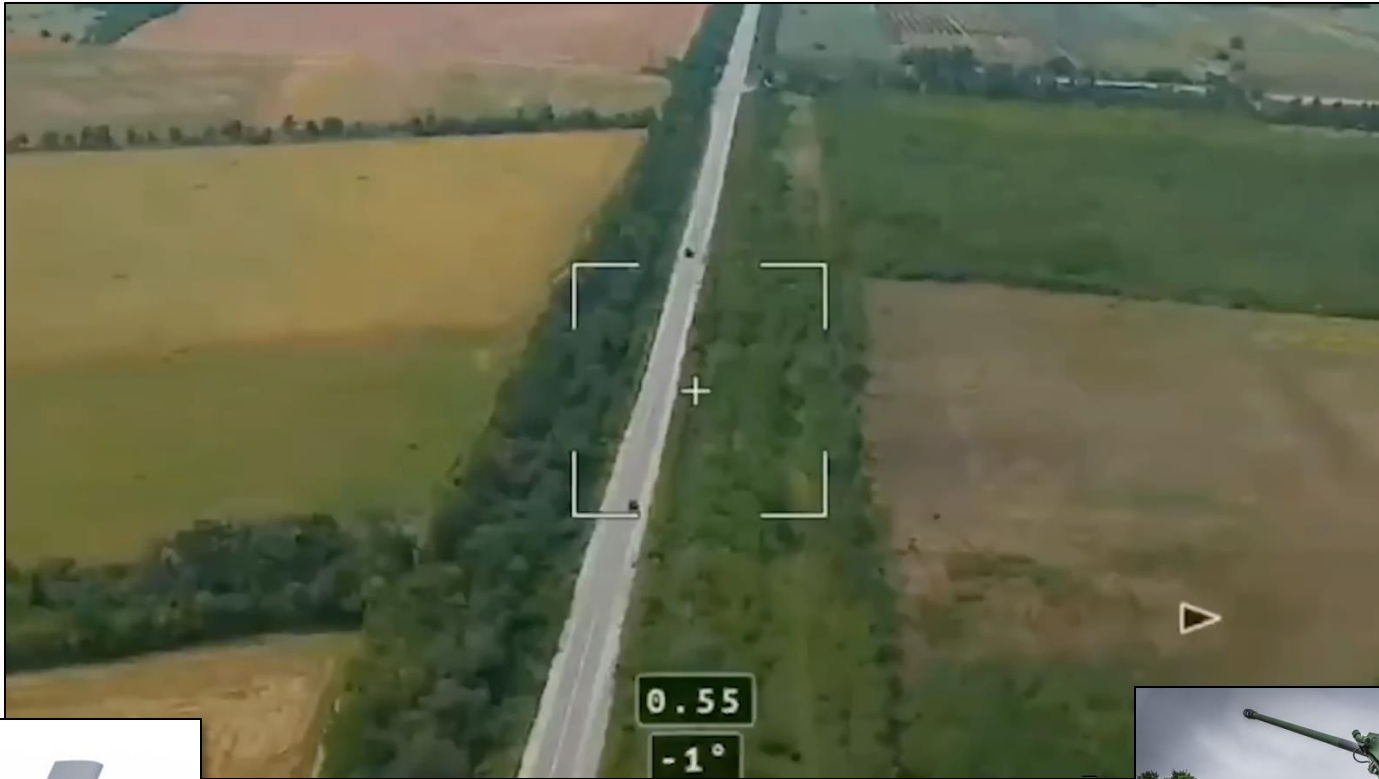


Pixhawk controller

## What we also study: counter-drone technology



# "low cost" versus "high technology"

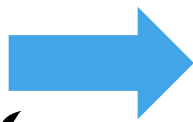


\$35,000







\$7.5 million

SDU 



Similar situation for other types of vehicle  
(tanks, trucks, helicopters)

## A few key innovation takeaways

-  **Big effort towards lowering the cost of drone technology  
(the mass effect)**
-  **Dual use**
-  **Possible issues with where components are produced  
(supply chain)**
-  **Innovation cycles can sometimes be extremely short = sprints  
(how can we help research and innovation to work more efficiently)**

# Future outlook?



... 2018



Thank you!

