**The methodology**

We had weekly sessions, delving into technological advancements and code adaptation. Our collaborative efforts included the exploration of connecting the CubeOrange to the simulation and deploying the parachute in simulation.

**The details of the team members**  
Shahar Michel – 315327957  
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**Description of system components**

Virtual Machine:  
Utilized Ubuntu as our operating system.  
Workplace Setup:  
Employed PX4 initially, transitioning to ArduPilot, QGroundControl, and Gazibu.  
Utilized Visual Studio Code and Github as primary workspace tools.  
Hardware Integration:  
CubeOrange served as the sole hardware component in our configuration.

**Defining the goals of the project**

Activate the parachute function within the drone software and simulate the action in a virtual environment. Upon successful implementation, the next step involves testing this function in the real-world scenario.

**Summary**

We activated the parachute function in the drone and simulated its deployment within the virtual environment.

**Conclusions**

To employ the physical hardware, possession of the actual drone is a prerequisite.

**Solution**

We modified system parameters to activate the integrated parachute function.

**Problem**

In emergency situations, the drone may risk self-damage due to its inability to fly, resulting in an improper landing.

**Main points**

Deploy operating systems on all workstations  
Integrate hardware with software for seamless connectivity  
Switch from PX4 to ArduPilot  
Conduct a successful simulation of deploying a parachute  
Identify missing components for a comprehensive understanding of the system

Dronix- Drones project

תמונה שמכילה טקסט, גופן, לוגו, גרפיקה

התיאור נוצר באופן אוטומטי