(SLIDE 1) Hello, my name is Martijn Guilliams and I am a student at the Hogeschool PXL. I am doing my internship and bachelor thesis at DroneMatrix, a Belgian company that specializes in developing and applying autonomous drone solutions. In this video, I want to tell you briefly about the company and my research project.

(SLIDE 2) DroneMatrix was founded in 2015 and is a pioneer in the drone-in-a-box industry. (SLIDE 3) A drone-in-a-box is a fully integrated autonomous drone system that can be deployed remotely for various purposes, such as security, inspection, logistics and more. DroneMatrix has developed its own drone platform, called YACOB, which uses advanced artificial intelligence on board for live interpretation and evaluation of the images. YACOB is safe, reliable and flexible to use in any industrial environment. DroneMatrix offers its customers a drone-as-a-service, where they only pay for the effective flight time and the data they need. Customers can also buy a drone from DroneMatrix if they prefer to own one instead of using the drone-as-a-service option.

(SLIDE 4) During a flight, a drone goes through al lot a mechanical stress. How can we measure and test this before and between flights? My research project is about designing and building a testbench for testing newly produced drone arms. (SLIDE 5) The testbench will measure different aspects of the drone, such as vibrations, efficiency, quality and forces like thrust and torque. As a result, the efficiency of the motor can be calculated to check if every motor is working up to the specifications. These measurements will then be used to improve build quality resulting in less vibrations and possibly a longer lifespan of the drone.

(SLIDE 6) I hope you have a better idea of what DroneMatrix does and what my research project entails. I look forward to telling you more about my progress and results in the Kick-off presentation next week. Thank you for your attention and see you soon.

Feedback 28/02/24:

* Goed geschreven, zie enkele kleine opmerkingen in commentaar
* Ik zag net de punten waarop beoordeeld wordt in de email naar de promotoren:
  1. Voorstelling bedrijf
     + Perfect, in orde!

1. Probleemstelling/onderzoeksvraag
   * + De paragraaf die er nu staat is op zich goed geschreven, maar:
     + Probleem wordt nog niet letterlijk beschreven, nu staat er vooral wat je gaat doen
     + Er is nog geen "letterlijke” onderzoeksvraag, maar dat is voor een pitch misschien nog niet zo belangrijk, want het is wel duidelijk dat je de efficiëntie en kwaliteit gaat meten