

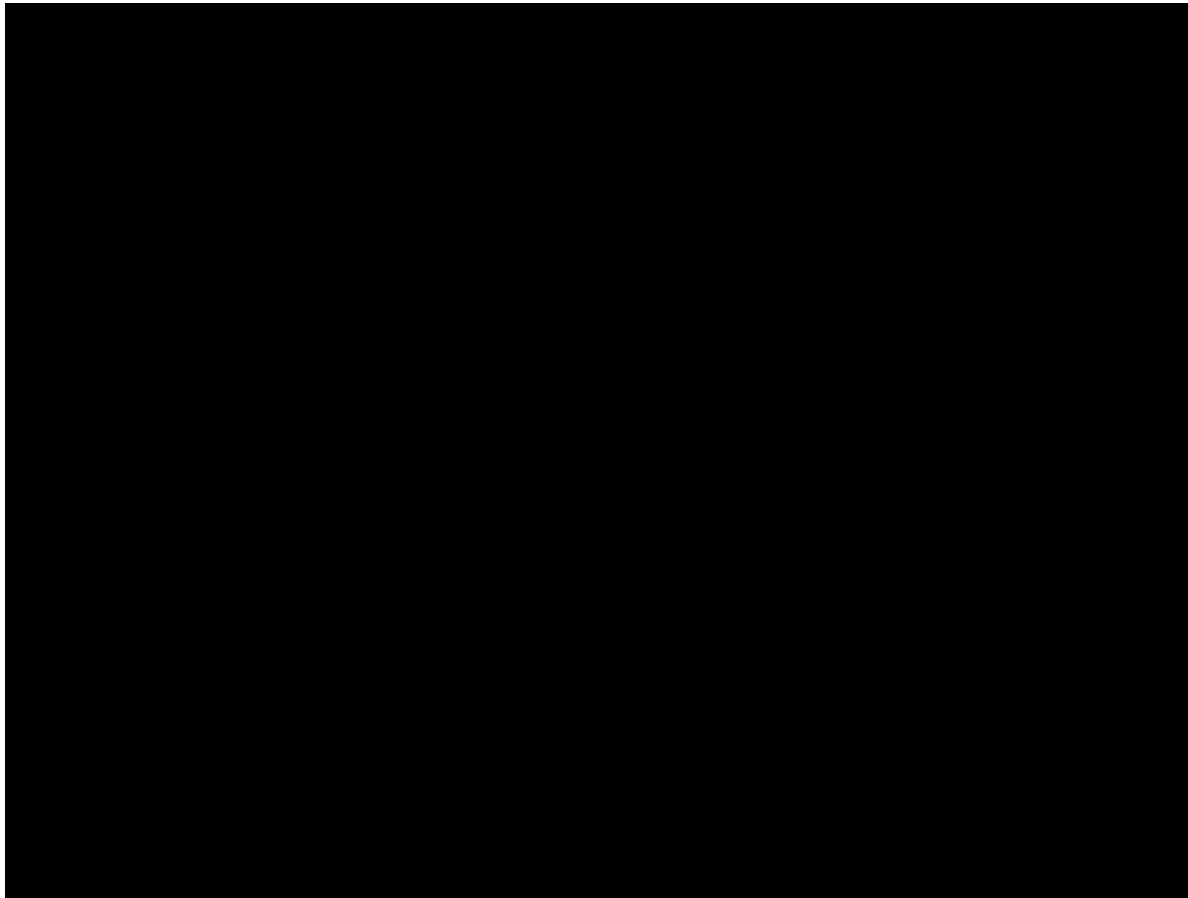
Fast landing on moving vehicle

Navigation for Flying Robots - Free style project

Team “Roter Baron”

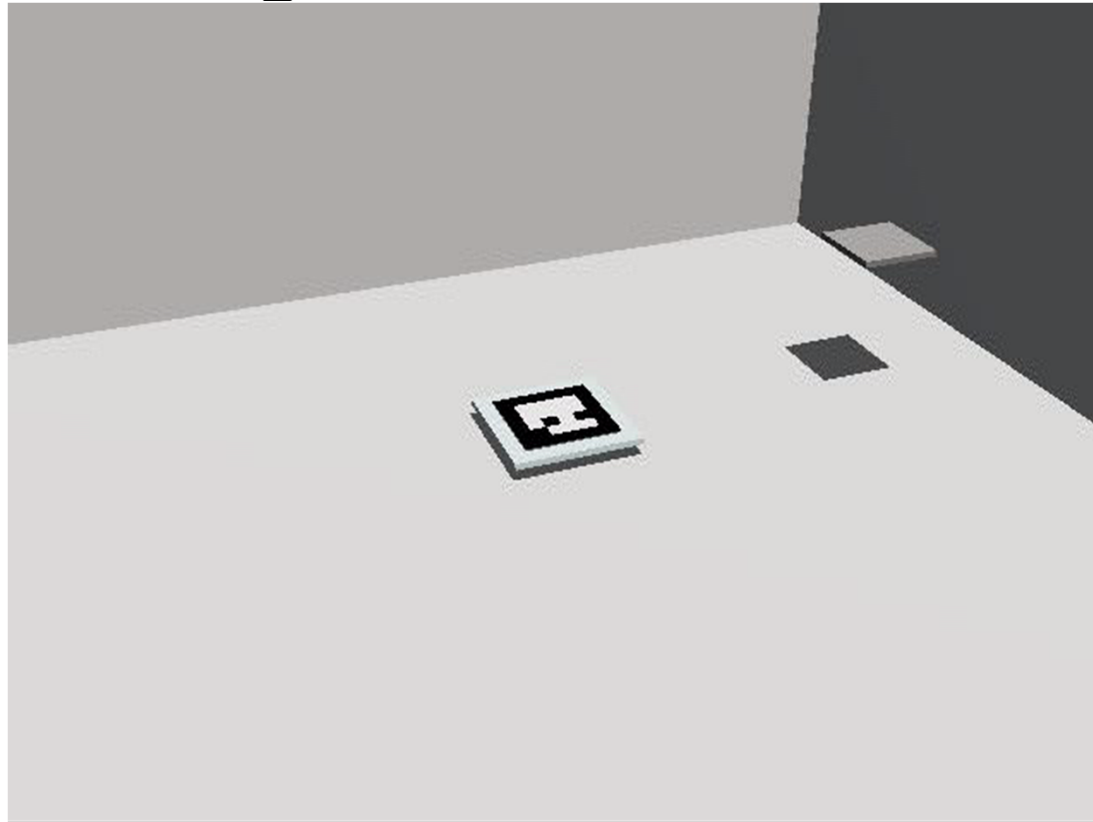
(Tobias Brachert, Atanasko Atanasov, Florian Liegsalz)

Existing examples



Slow landing on moving vehicle

Faster landing idea



The Challenges

- Approaching target with **switching cameras**
- Needs good approximation of target movement
- Needs to **compensate time-lag** between registration, progressing and steering
- Needs to have emergency **save-routine**

So how do we do it...?

- First navigate with front camera until break
- Approximate movement of vehicle with Kalmanfilter (since we have this working already)
- Look in downfacing camera at the actual landing for the marked platform
→ emergency restart if needed
- Mode-based Approach:
starting - some task (like looking for a marker) - looking for landingmark - fast moving there - landing