

# POI Localization and Mapping

Group: Pioneers

Mark Muth  
Thomas Schöps  
Ardo Septama





**Start**

**A**

**B**

**C**



# Problem Specification

- Flying through unknown terrain, the AR.Drone should localize and map nearby POI
- An initial marker serves as a starting point
- Other markers will be located by following a predefined search pattern

# Challenges

- The localization of further markers will have high uncertainties
- Uncertainties can be reduced by
  - Backtracking previously known markers
  - Seeing multiple markers at the same time
- The search pattern should optimally cover the exploration area

# Future Work

- Possible extensions involve
  - Searching POI in three dimensions
  - Using different kinds of POI (humans, cars, ships...)
  - Obstacle avoidance