Visual Navigation for Flying Robots – Project Proposal

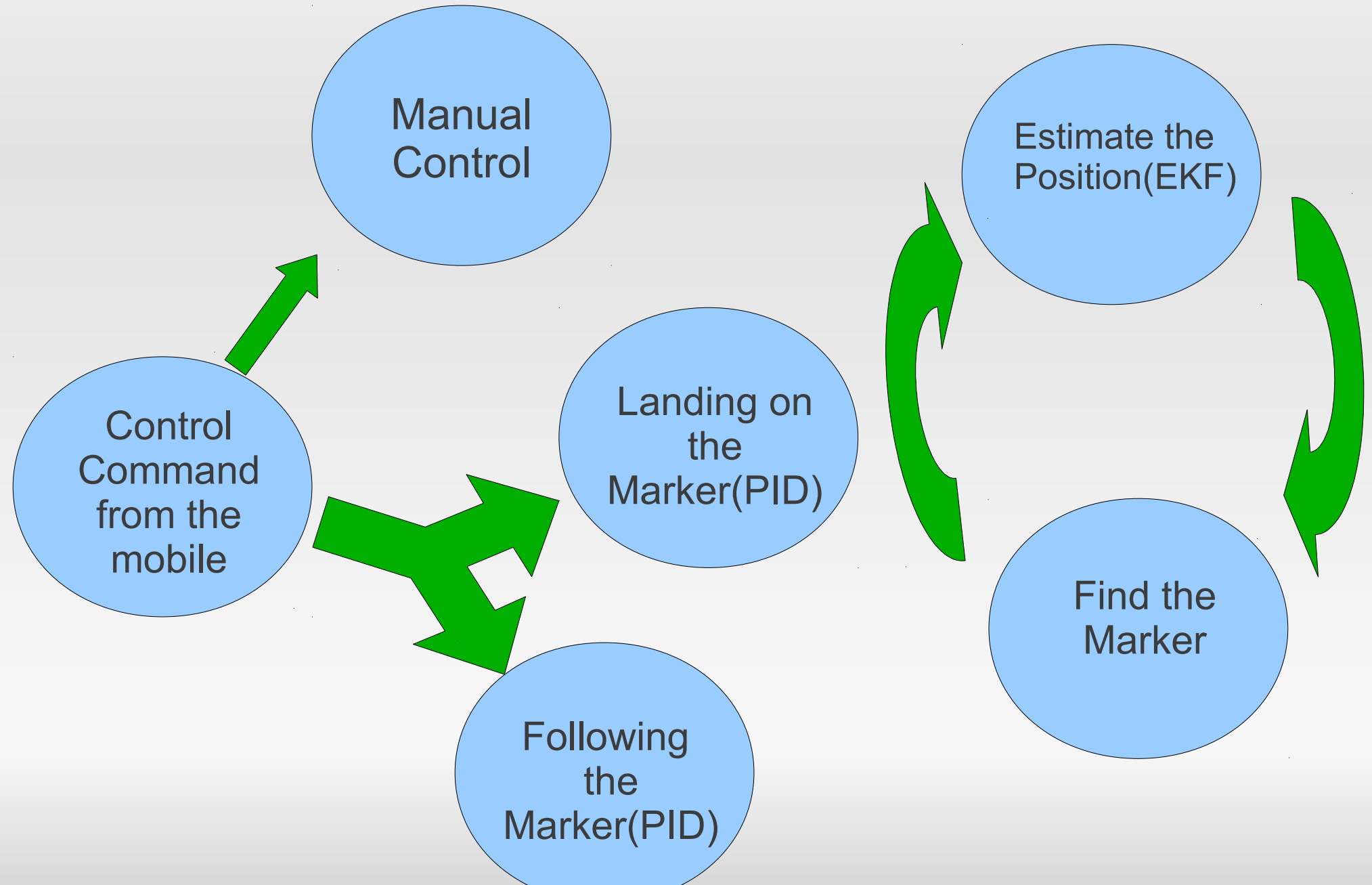## Autonomous Landing on the Moving Platform

presented by
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Motivation

- Controlled landing in difficult environments
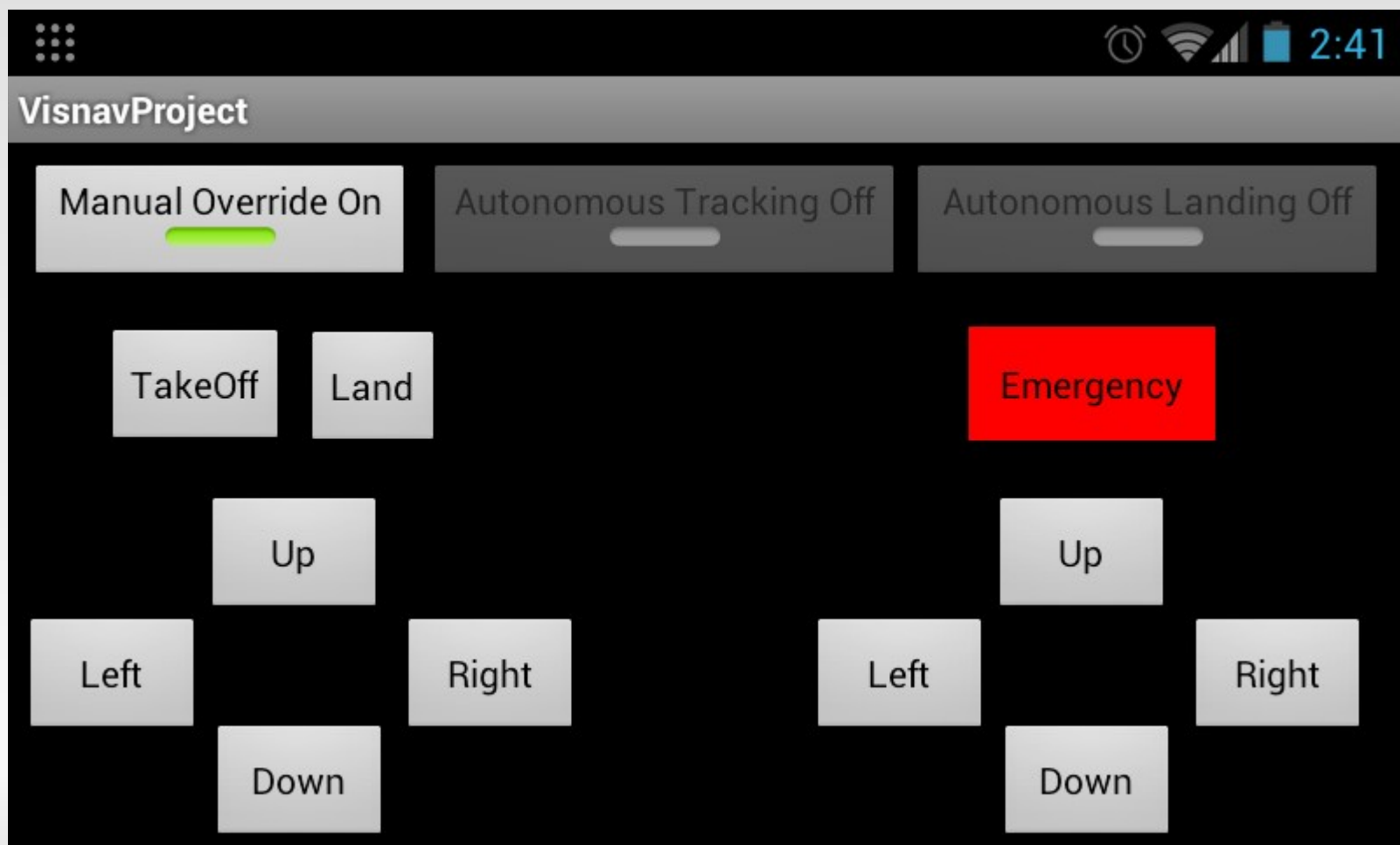- Following the marker implicitly
- Control with the Android Smartphone

State Graph

What is done?

- User Interface for the mobile phone

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- Landing on the moving platform is implemented and tested

- Following the marker is implemented and tested

How did the landing go?

- Try to land when the ARdrone is stable enough
  - Video 1
- Try to detect the other marker and set him as the goal for the PD controller
  - Video 2
- Follow the detected moving marker
  - Video 3

Next steps

- Try different marker following approaches (i.e. Use the marker for EKF as the moving marker)

- Improve the autonomous landing

- Combine the software with the mobile user interface

- Test it with the mobile

- If there is enough time → try to apply controller for height of the ARdrone

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Autonomous Landing on the Moving Platform

Questions?

Thank you for your attention.