Turning towards points of interest using a Saliency Map

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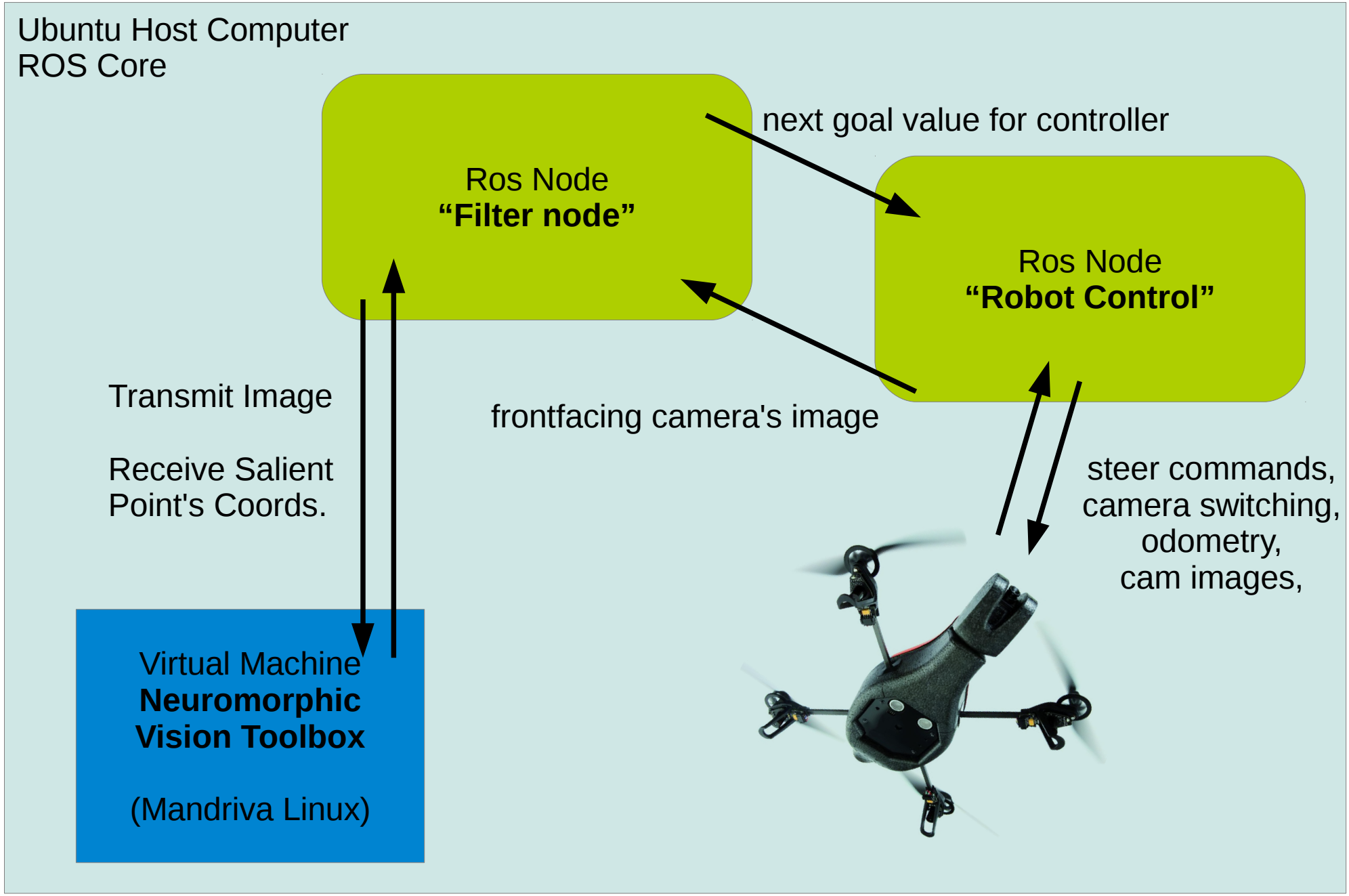
Overview

- Proposed objectives successfully implemented
- For several reasons - additional filters for selecting a point of interest, e.g. markers, color

Final Implementation Plan



Robot Control

- So far there was no ROS service call for directly selecting a camera:

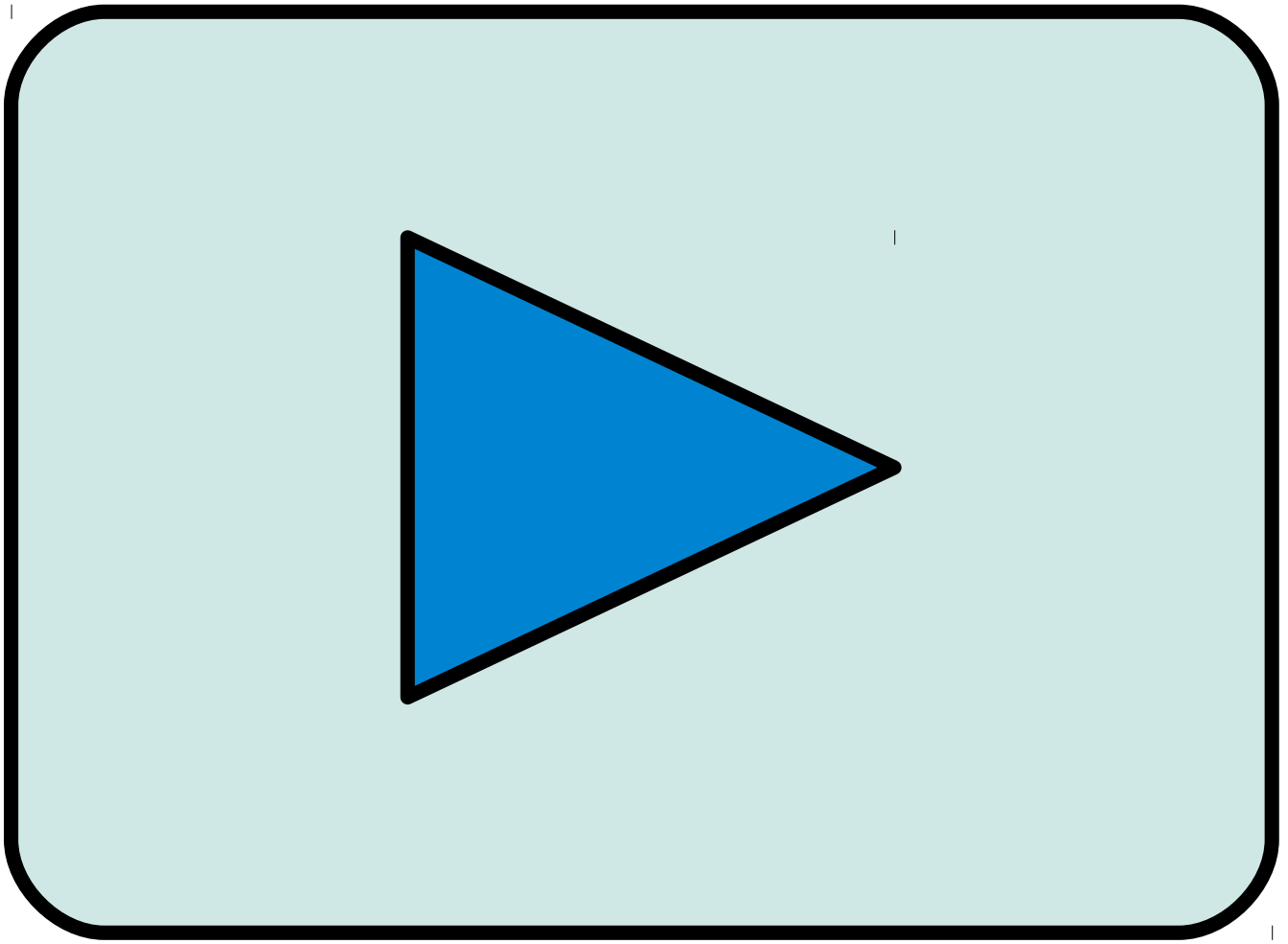
  → We implemented selective calls additionally to the so far only existing *toggle_camera* one
- Stable control is possible even with switching cameras!
- Validation: Tracking markers in both camera's images
- Design allows arbitrarily slow filtering process

Filter Node

- Filter Node
  - Input: image of frontfacing camera
  - Output: x / y coordinates of goal point

    → simple to use another filter
- NMVT works good with quadcopter images
- Using the toolbox with ROS is possible, although tedious

Some Videos



Conclusion

- Position control with marker tracking works
- Saliency Maps on drones: interesting for experiments

  → hard to understand what really happens from pure observation of the drone

Future Work

- Use face detector as filter node