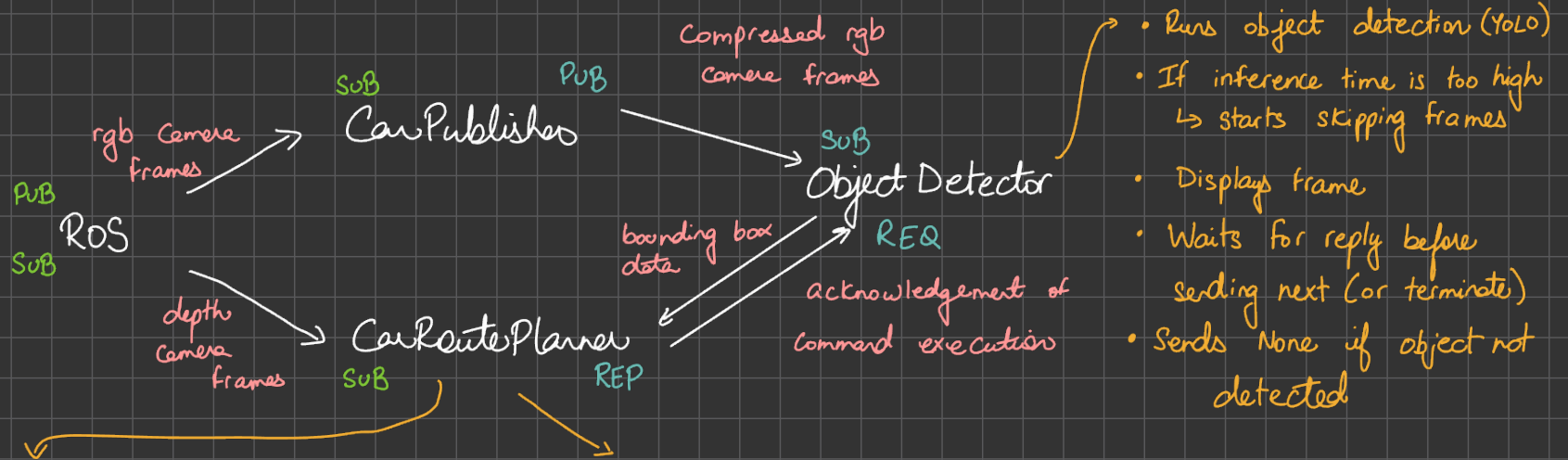


Communication using ROS  
communication using  $\phi$ mq,  
description of data  
description of module



- Runs object detection (YOLO)
- If inference time is too high  
↳ starts skipping frames
- Displays frame
- Waits for reply before sending next (or terminate)
- Sends None if object not detected

If bounding box is None:

- Goes into "exploration" mode
- Moves in small intervals in circular path
- After each interval, waits for new update from object detection module

If bounding box is not None

- Goes into "navigation" mode
- Checks for average depth in region defined by bounding box
- If depth  $> 0$  (ie depth camera can sense object)
  - ↳ Goes into high confidence navigation
  - ↳ Else, goes into low confidence navigation