



Perception

$\{ \text{object: "cup", position: \{x: 8, y:4\}} \}$   
 $\{ \text{object: "cereal", position: \{x: 8, y:3\}} \}$

Oplog

$\{ \text{op: "insert", ts: Timestamp(1485369072, 5),}$   
 $\text{o: \{object: "cereal", position: \{x: 7, y:4\}} \}$



Callback

Trigger

**Query:**  
 $\{ \text{object: \{ \$exists: true \},}$   
 $\text{position.x: \{ \$gt: 0 \}} \}$

Motion Planner