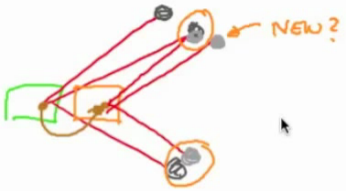
SLAM

- Continuous component

  $x, y, \theta, \quad x_1, y_1, x_2, y_2 \ldots, x_N, y_N$ (online SLAM)

- Discrete component



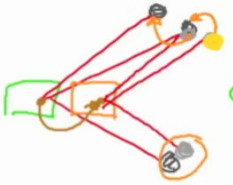
SLAM

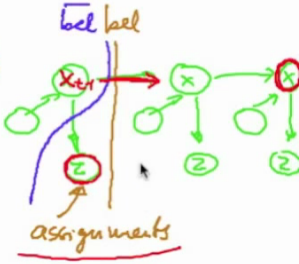
- Continuous component

  $x, y, \theta, \quad x_1, y_1, x_2, y_2 \ldots, x_N, y_N$ (online SLAM)

- Discrete component

  correspondence of objects to previously detected objects





- Calculation of the full posterior usually infeasible
  - High dimensionality of parameter space
  - Large number of correspondences