In class FastSLAM:

Correct (cylinders)
   weights = update_and_compute_weights (cylinders)
   resample (weights)

Function in the Fast_SLAM class

Function programmed in the
Particle Filter lecture
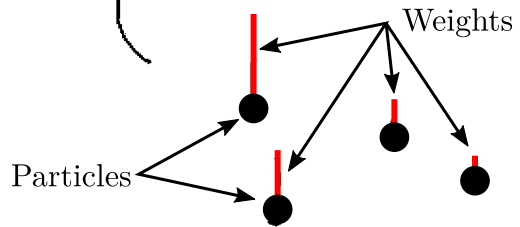
Weights

Particles

update_and_compute_weights (cylinders)
   weights = []
   for p in particles :
      weight = 1.0
      for m in measurement_list:
         w = p.update_particle(m)
         weight = weight * w
      weights.append (weight)
   return weights

FastSLAM

Function programmed
in the Particle class

Present all the measurements to all the particles

Measurement

$$\vec{z}_t = \begin{pmatrix} D_t \\ \phi_t \end{pmatrix}$$

Detected
landmark

Laser scanner's
longitudinal axis

ϕ_{3t}

ϕ_{2t}

D_{3t}

D_{2t}

Detected
landmarks

X_{laser}

ϕ_{4t}

ϕ_{1t} Y_{laser}

D_{1t}

D_{4t}