

# Poetics experiences in mobile robotics

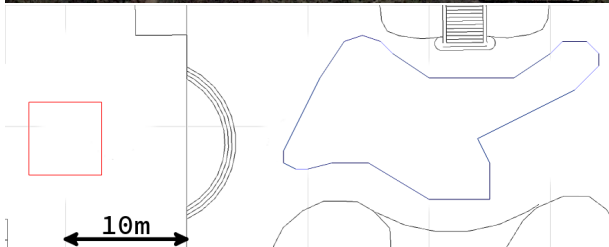
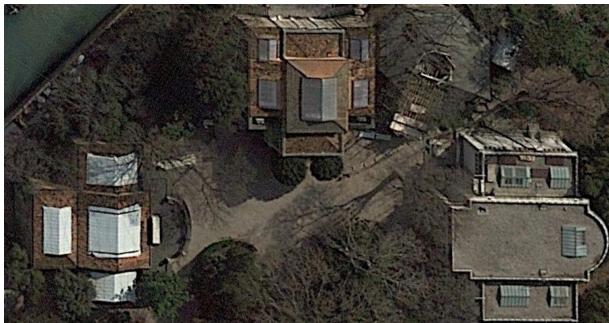
M. Taïx, G. Saurel and J.-P. Laumond



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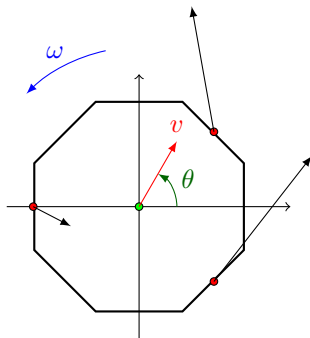




- 3 trees : 1 inside, 2 outside (shared area). Alive.
- height : 5 m ;  $\varnothing$  : 3 m
- speed :  $\leq$  1 m/min
- path : function of the tree's metabolism
- motion : holonomic



- $\theta \in [0, 2\pi[$  : direction of the center of the AGV ;
- $v \in [0, 1]$  : its linear velocity along the direction  $\theta$  ;
- $\omega \in [-1, 1]$  : its angular velocity.



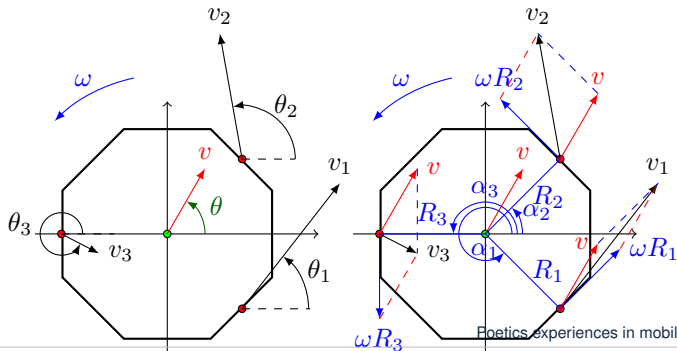


$$v_{ix} = v \cos(\theta) - \omega R_i \sin(\alpha_i)$$

$$v_{iy} = v \sin(\theta) + \omega R_i \cos(\alpha_i)$$

$$v_i = \sqrt{v_{ix}^2 + v_{iy}^2}$$

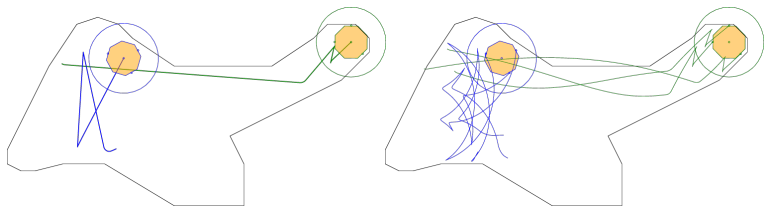
$$\theta_i = \text{atan2}(v_{iy}, v_{ix})$$

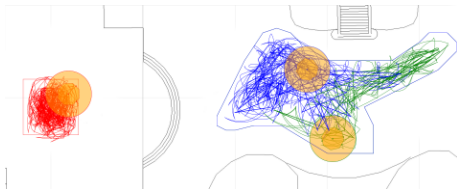


$$v = s_1$$

$$\omega = 2s_2 - 1$$

$$\theta = \text{atan2}(y - y_{goal}(s_3), x - x_{goal}(s_3)) - \alpha$$







Questions ?