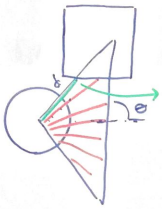
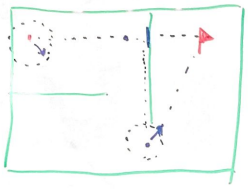
input: obs_pos → left ↔ right
ss_dist → far ↔ close

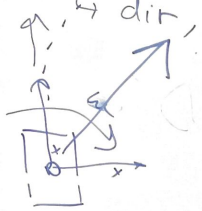




multiple rays
↓
select shortest
↓
feed to controller
: dist_to_obs
: angle_of_obs

controllers:
① simple navigator
② obstacle avoidance

raw: lidar_t
↳ range_max, angle.....
pose_t
↳ pos::x, pos::y...
↳ ornt::x...
↳ dir



~~① Everyone run Gazebo~~
~~② Move Fuzzy engine into core::init()~~
③ Switch to new main
④ Setup "dual" fuzzy controller
  ⓐ switching mechanism
  ⓑ simple nav
  ⓒ obs avoidance
  ⓓ etc. utility methods
    ↳ utility:: draw_lidar()
    ↳ utils:: max_range