

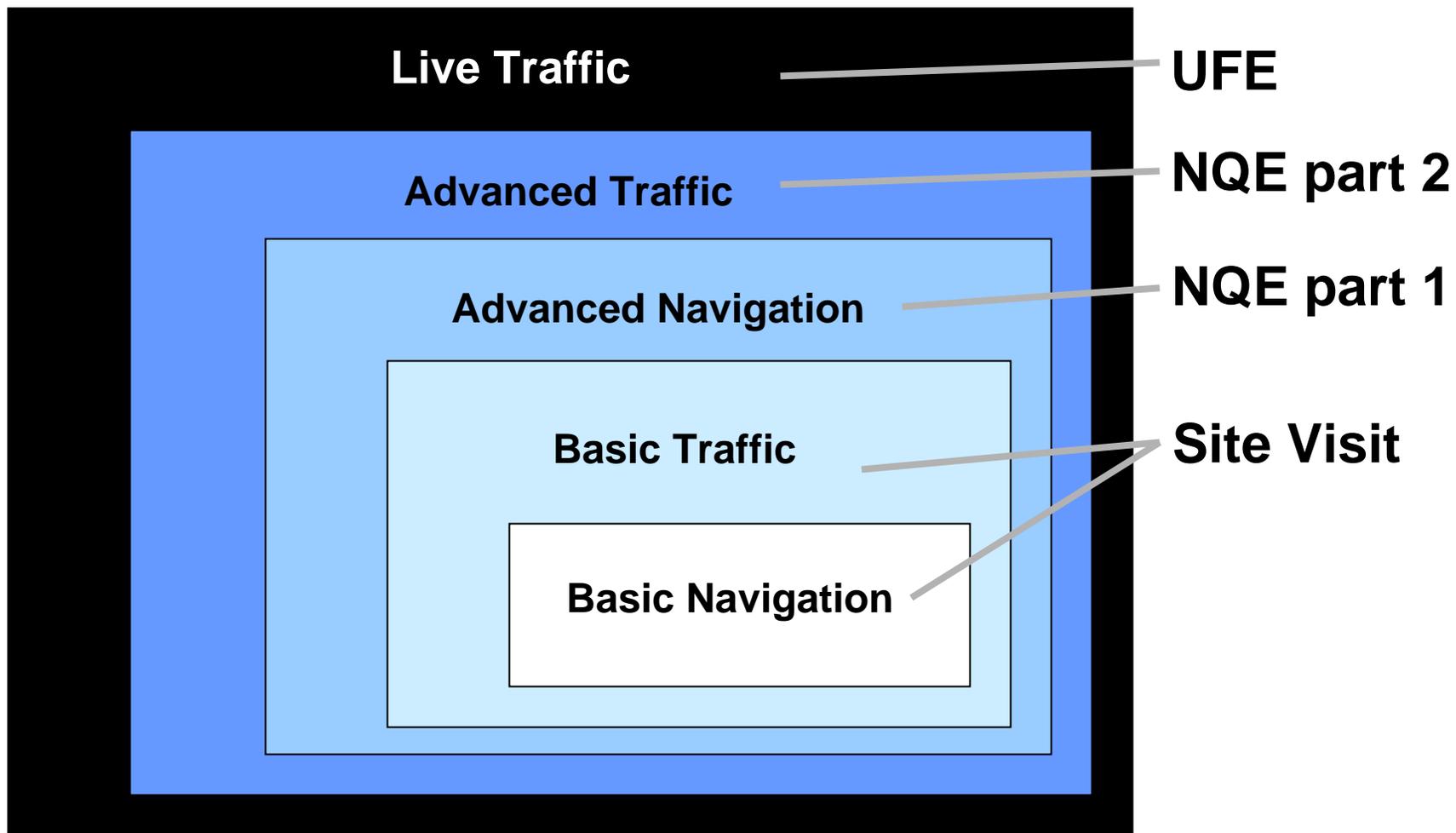


Rules

- Route Definition
- • Technical Criteria
- Event Operations



Required Behaviors



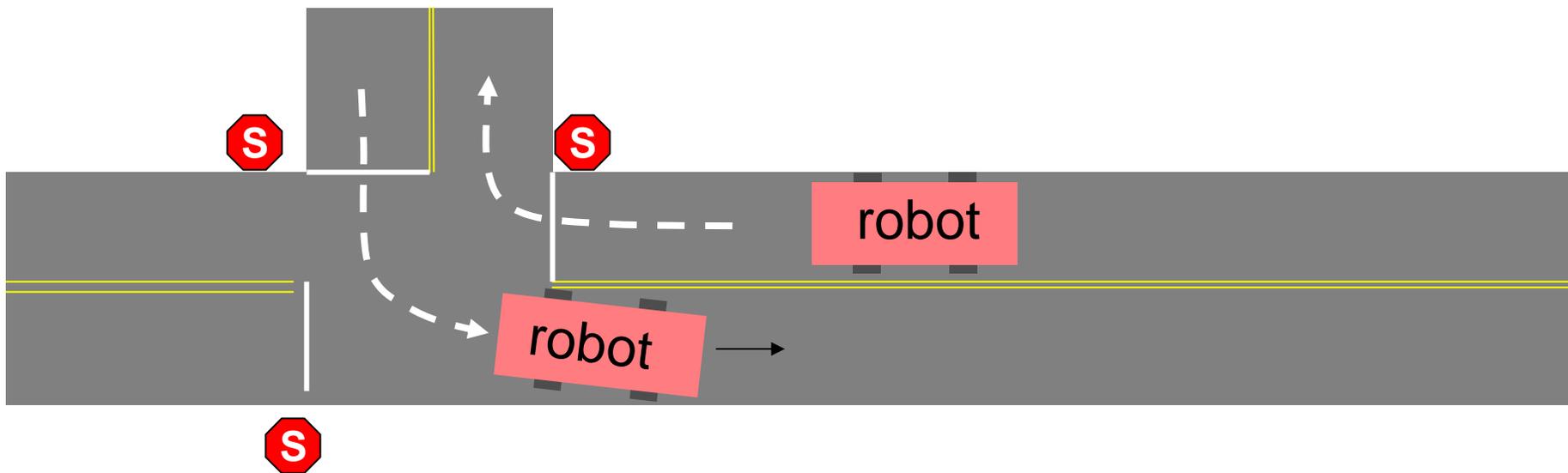


Technical Criteria Examples



Basic Navigation

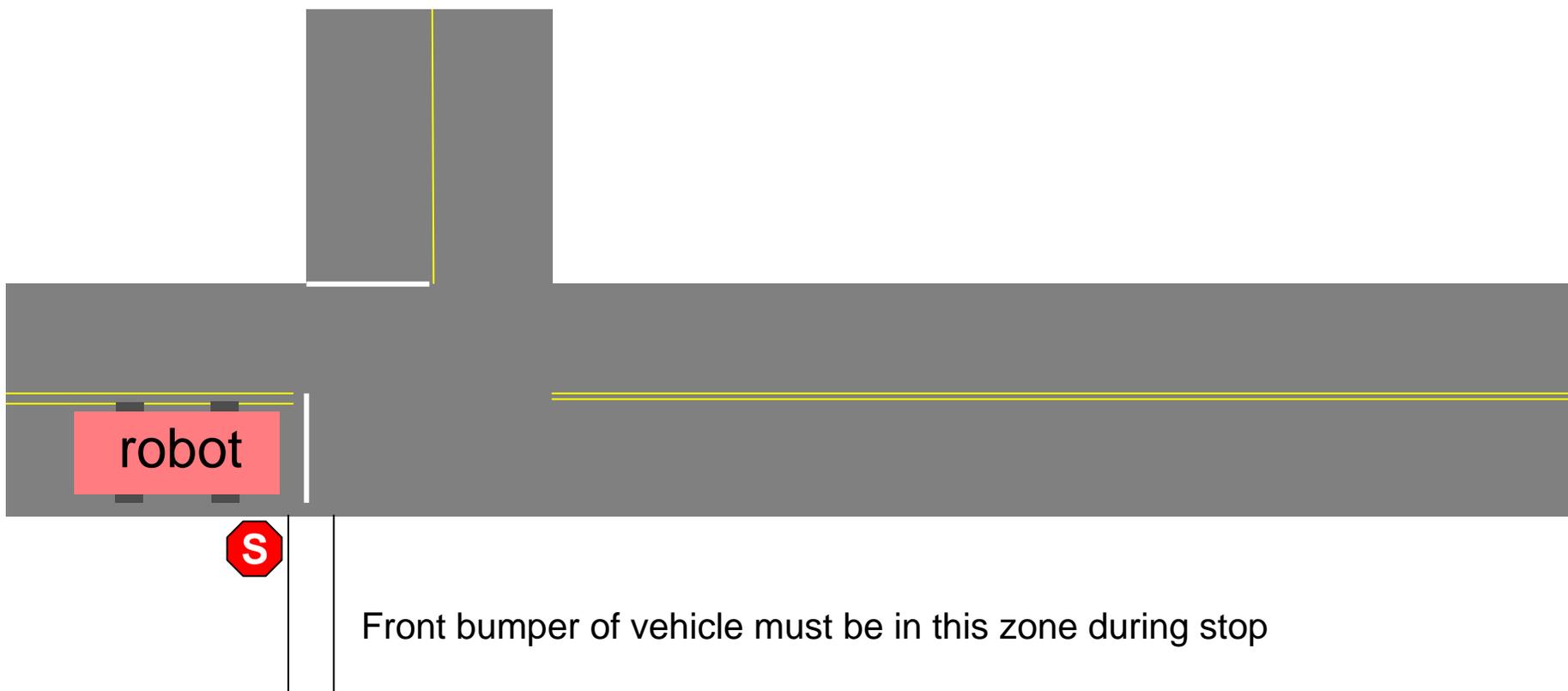
Vehicle stays entirely within travel lane around corners.





Basic Navigation

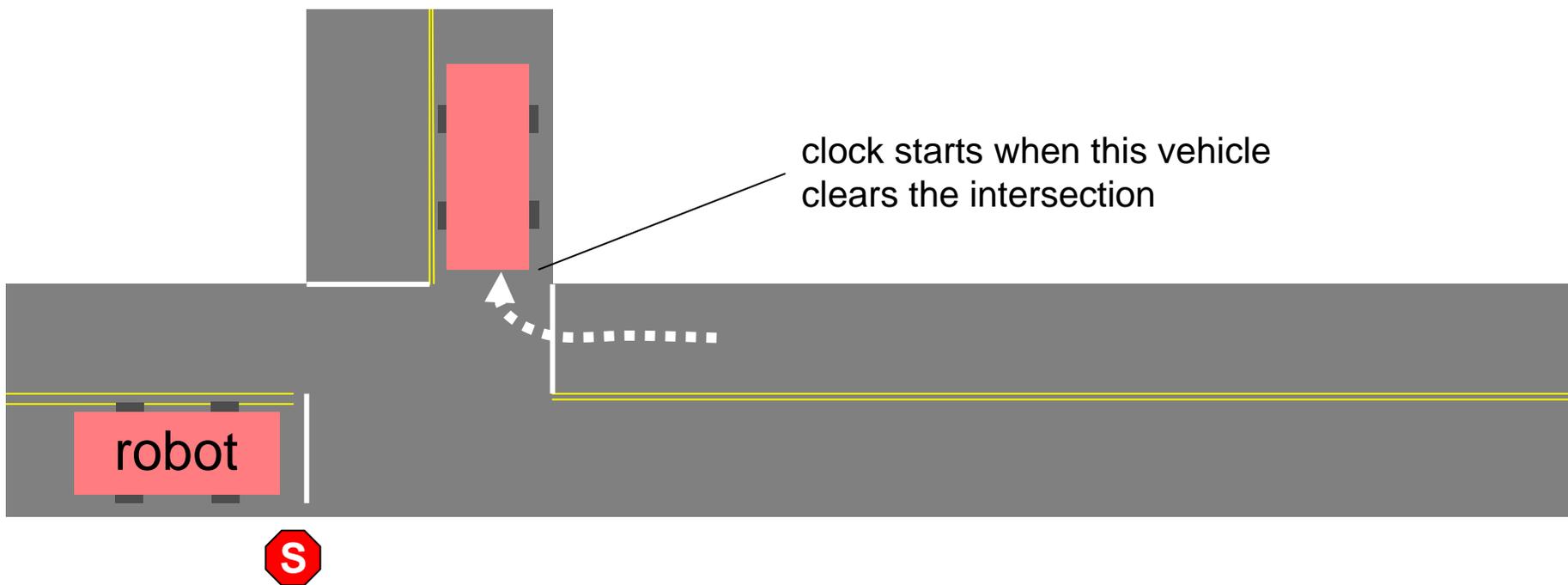
Vehicle stops within 1 meter of stop line.





Basic Navigation

Vehicle exhibits less than 10 seconds of delay when intersection is clear.



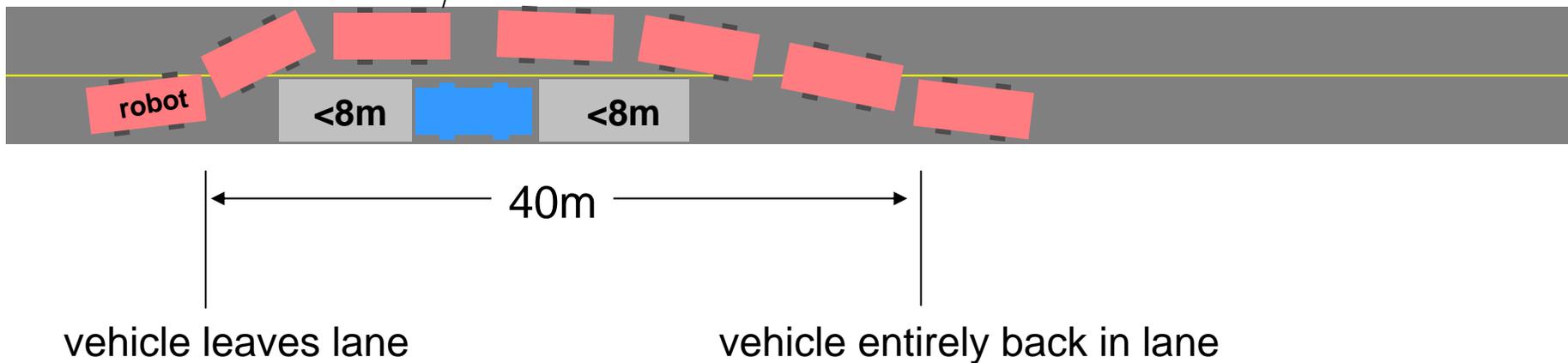


Basic Navigation

Vehicle completes passing maneuver in 40-meters or less maintaining 8-meter safety buffer

vehicle entirely within passing lane

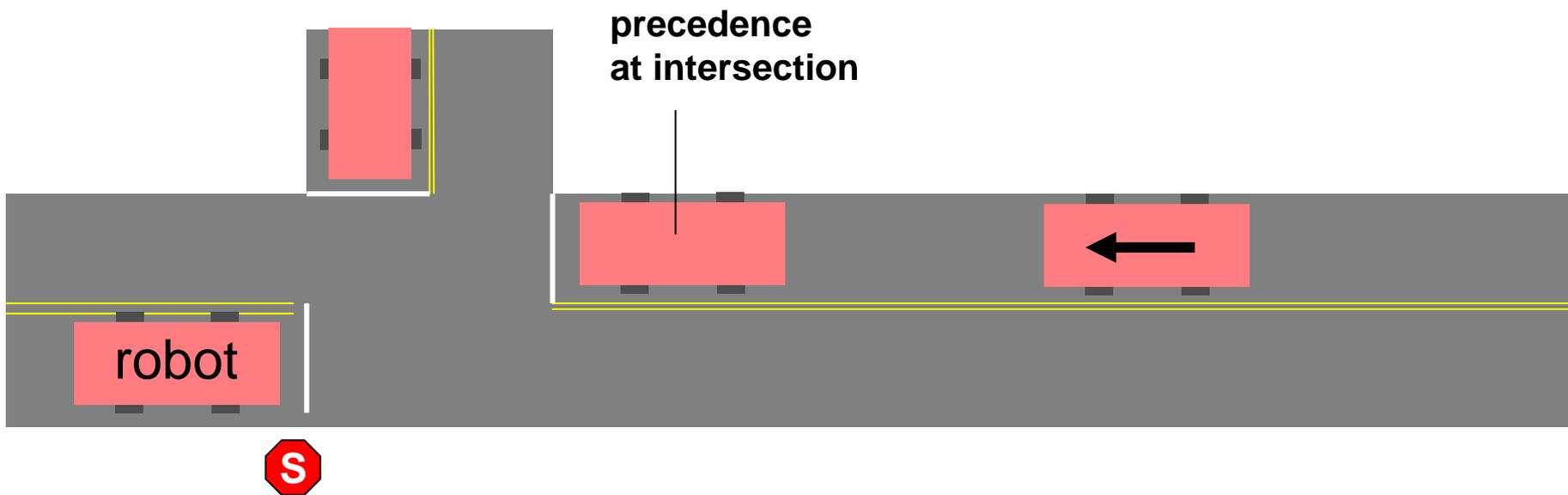
 stopped vehicle





Basic Traffic

Vehicle exhibits correct precedence order at intersection.

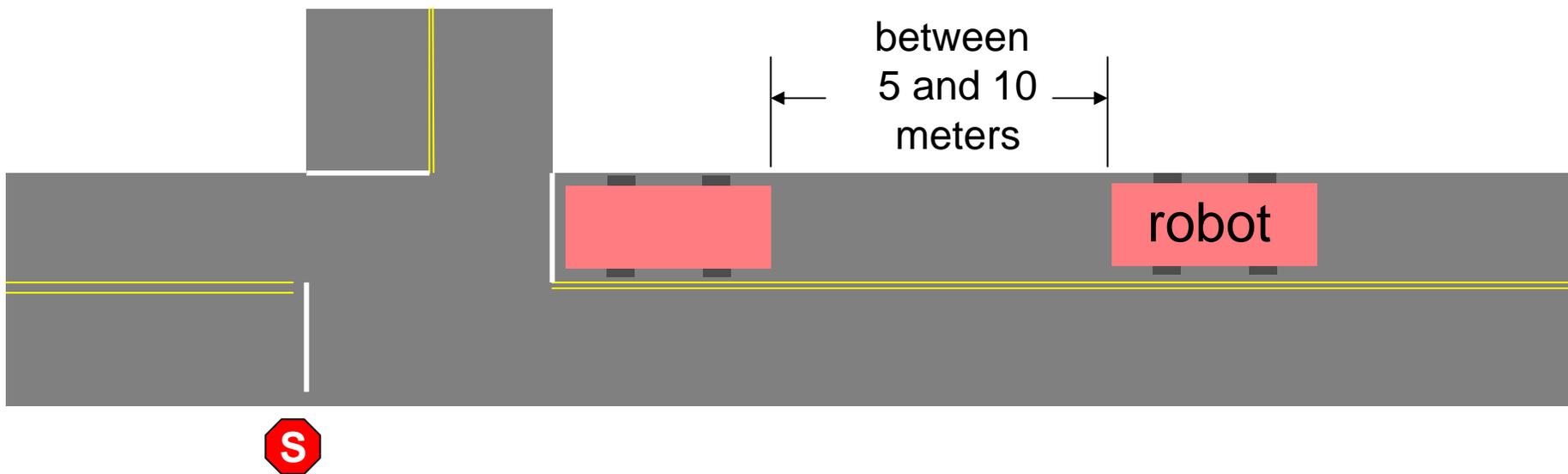


First to reach stop line is the first to leave.



Basic Traffic

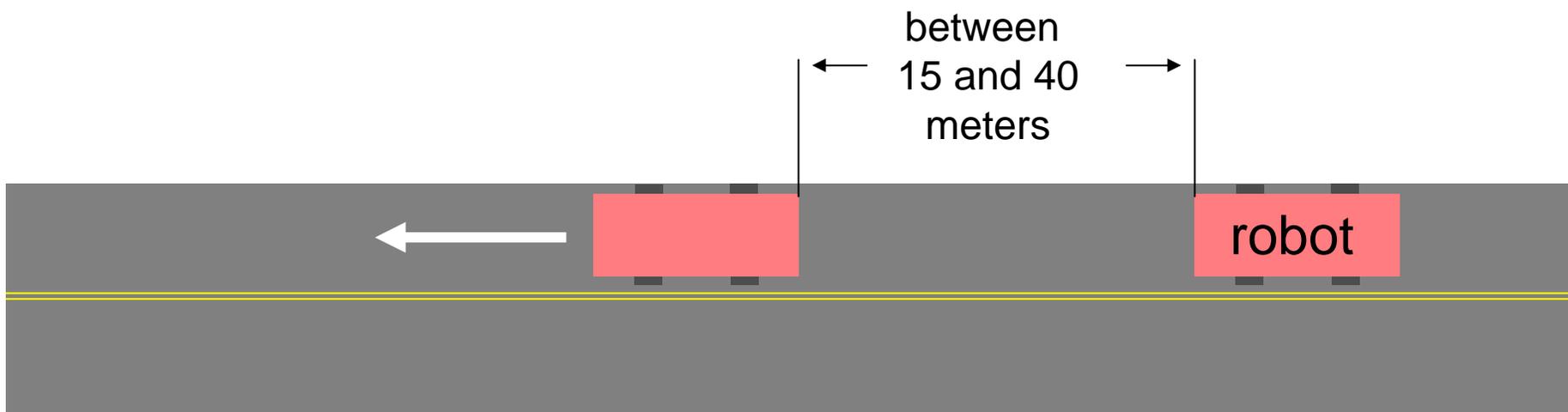
Vehicle stops between 5 and 10 meters behind stopped lead vehicle.





Basic Traffic

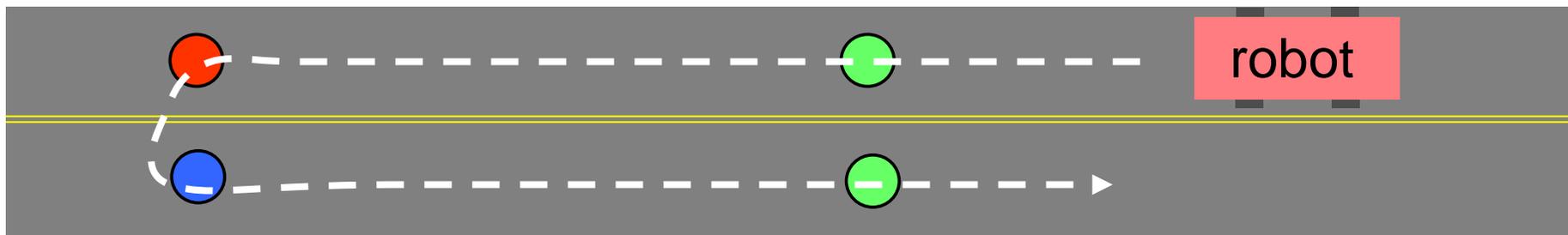
Vehicle maintains 15 meter safety buffer at 15 mph.





Advanced Navigation

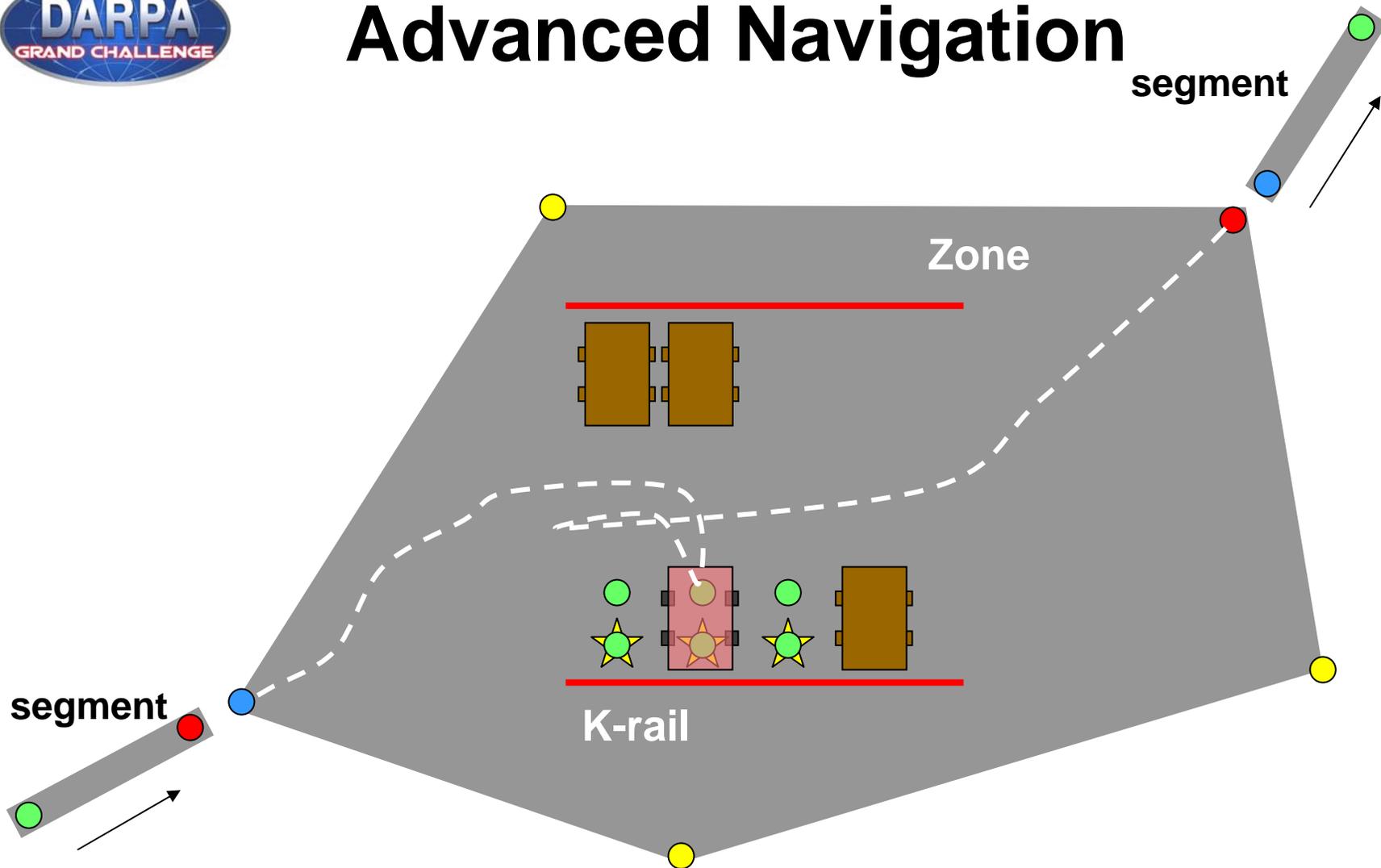
A U-turn may be effected through one or more three-point turns.



-  Waypoint
-  Entry waypoint
-  Exit waypoint



Advanced Navigation



Vehicle exhibits correct parking lot behavior with less than 10 seconds excess delay.



What is Excess Delay?

To avoid jamming up roads and parking lots, vehicles need to move when the way is clear.

Excess delay is timed during “stop and stare”

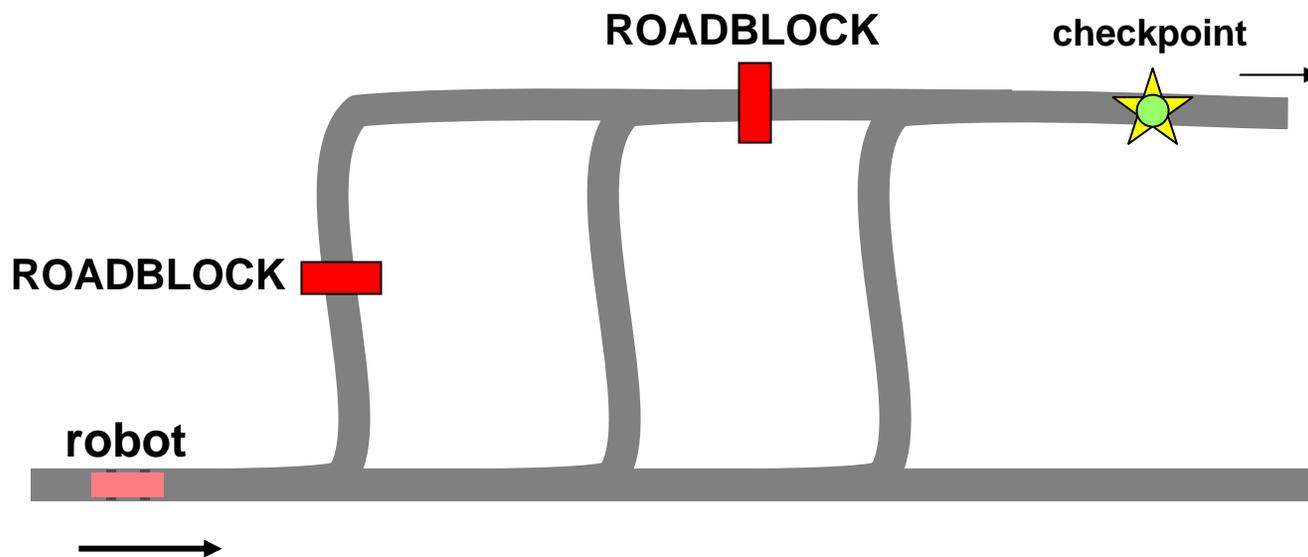
Taxicab Algorithm





Advanced Navigation

Vehicle re-plans when primary route is blocked.





Advanced Navigation

Vehicle navigates roads with sparse waypoints.

Intersection not called out in RNDF

Sparse waypoints on curved road

One-way road





Advanced Navigation

Road-following situations:

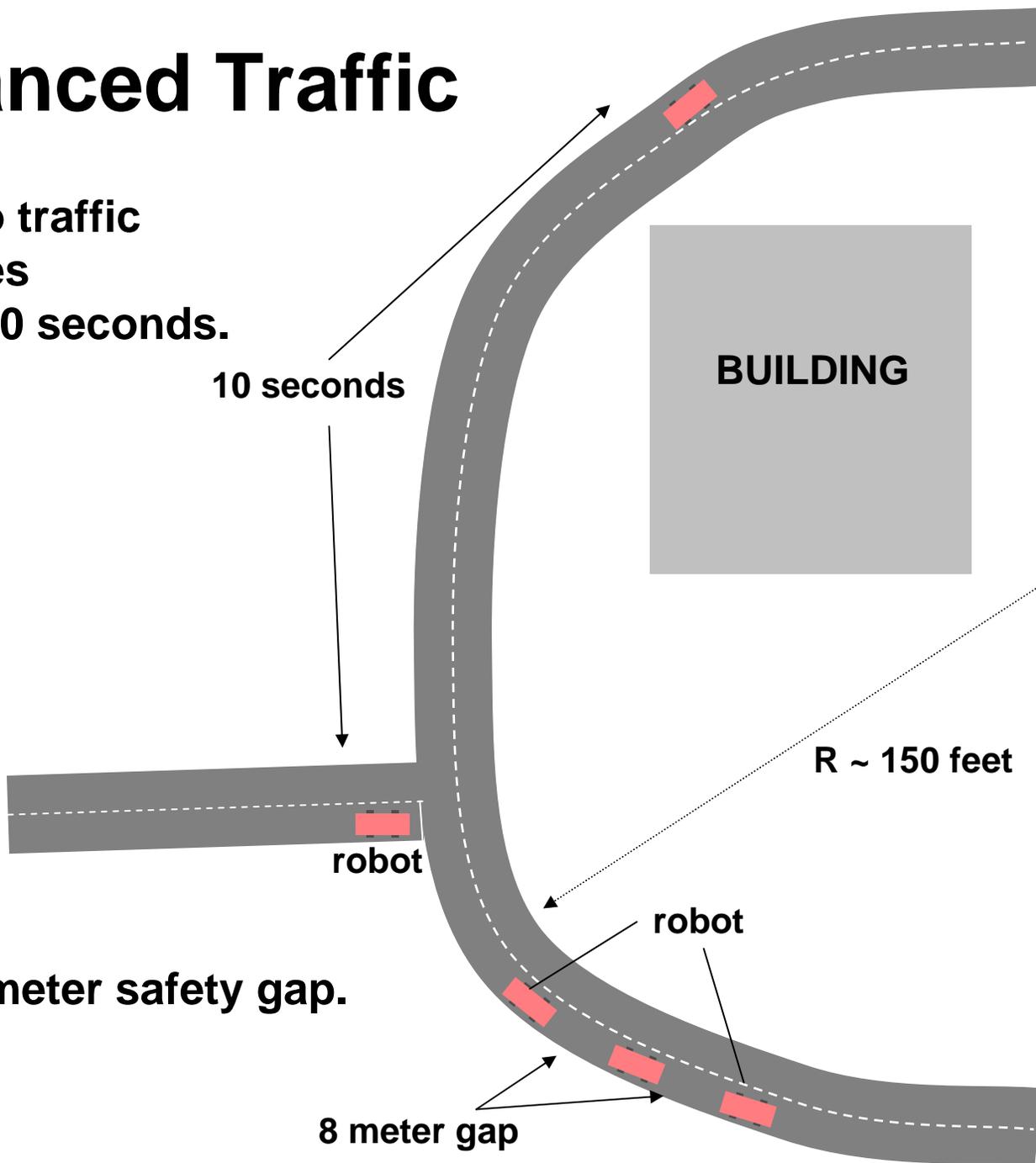
- **Curbs, berms, vegetation**
- **Street lines may be missing**
- **Winding roads**
- **Sparse waypoints -
may not be in center of road**





Advanced Traffic

- Vehicle should pull into traffic when oncoming vehicles leave a gap of at least 10 seconds.

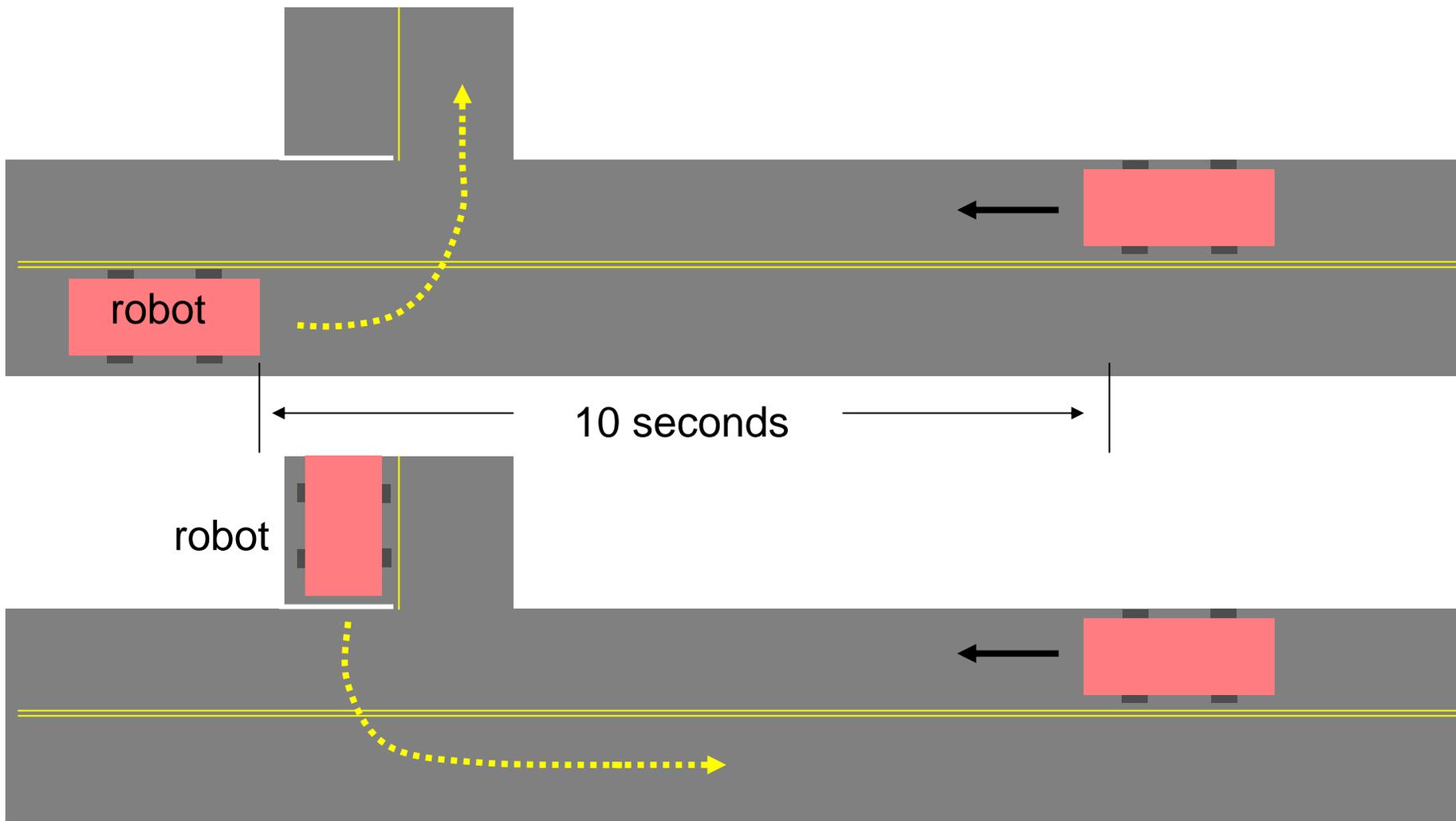


- Vehicle maintains 8 meter safety gap.



Advanced Traffic

Vehicle makes a left turn across moving traffic and proceeds with less than 10 seconds excess delay.





Advanced Traffic

Vehicle exhibits safe behavior at all times to avoid collisions and near collisions.

