



States: Front (F): Use nav algorithm to go forward
Back (B): Use nav algorithm to go backward
Stop (S): Stop

Conditions: FTC: Front Too Close
 RTC: Rear Too Close
 FFE: Front Far Enough

Transitions:

FTC	RTC	FFE	F	B	S
0	0	0	F	B	F
0	0	1	F	F	F
0	1	0	F	F ⚠	F
0	1	1	F	F	F
1	0	0	B	B	B
1	1	0	S	S	S

note: FTC and FFE can't be true at the same time

⚠️ Going from backward to forward when there is a rear obstacle but not enough space in front of the car could lead the car to drive in the wrong way.

Configurations:

Schema

FTC RTC FFE

0 0 0

0 0 1

0 1 0

0 1 1

1 0 0

1 1 0

