Problem 1:
R1 and R2 move onto the same tile at the same time.

Wall	Robot1	Wall
Robot2	Conflict	Shelf1
Wall	Shelf2	Wall

Solution:
1. Compute conflicting moves for first time step
2. Delay one of the moves by one time step
3. Repeat with new move set

Problem 2:
Robot 1 has to move over Robot 2. Waiting doesn't help and they have to swap goals

Robot1
Robot2
Shelf2
Shelf1

Solution:
If one robot moves on top of another or 2 robots try to swap they will swap goals instead

Problem 3:
Robot 1 and Robot 2 try to move to the Conflict tile. Instead of waiting one of the robots should move to the right.

Robot1	Wall	Shelf2
Conflict		
Robot 2	Wall	Shelf 1

Solution;
1. Instead of waiting the robot must find a path towards its goal less steps than waiting and going the given path

Problem 4:
Robot 1 tries to move one below Robot 2 and 3 try to move on the Conflict tile.

Robot 1	Wall	Wall
Robot 2	Conflict	Robot3
Wall		Shelf1
Shelf3		Shelf2

Solution:
When waiting the robots involved in the conflict must determine the size of the queue behind them to determine the order of waiting. When multiple robots in the queue are waiting, each robot may determine whether there is a better path to their goal. This will result in very slow computation but it's up to be tested.