Warehouse

A robot has a list of orders to fulfill (pre-scheduled to not run into issues of complexity theory), the robot exists in a warehouse, which is a grid.

There are the optimal routes pre-determined, when every single time a robot has to use a junction we need a fence post so 2 robots don't go through at the same time.

Consists of:

grid of resources

routes from collection points the robots takes

write barrier on junctions

read barrier on fetching products from a storage

Advanced version:

add a write barrier on the final package, for example we have to put heavy objects at the bottom

Thus in a normal version:

we have multiple write/read barriers

In the advanced version:

we have a conditional barrier, we have to wait until the required robot arrives and puts the heavier object to the package