Task one - Mobile Robot

Sensors and Nearest block's position:

There is a mobile robot which is equipment by three sensors, "two ultra-sonic in left and right side of the robot and one energy sensor". The energy sensor able to sense red block on the maze map. In order to collecting the energy blocks, calling this function:

"World.collectNearestBlock()"

is necessary.

Robot motion controller:

Two engines are intended for the robot that can work independently and in two directions. The function is used to control motion of robot called "motorSpeed":

motorSpeed = dict(speedLeft=1, speedRight=2)

"speedLeft" and "speedRight" represents the speed of each wheel by considering the numbers in front of them can control the speed and direction. However, we need to call this function from library and set the parameters to motors by using:

World.setMotorSpeeds(motorSpeed)

Execute fuction:

execute(motorSpeed, simulationTime, clockTime)

This function is combination of three different functions that reduce number line also could help us to control robot easily.

Simulation time is implemented the time of running this line, which means motor speed would be set till time get equals to simulation time.

Task two Poker game

Itertools:

"itertools" is a function for python to make efficient loop which help us to choose poker game card randomly.

product()	p, q, ... [repeat=1]	cartesian product, equivalent to a nested for-loop
product('ABCD', repeat=2)		AA AB AC AD BA BB BC BD CA CB CC CD DA DB DC DD

In this case, reflex agent would the best because player always bet depends on other player, therefore one of them spend less money than the others.

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