Path finder

* Constructor (width of grid, height of grid)
  + Int gridWidth
  + Int gridHeight
* Direction (robot X, robot Y, destination X, destination Y)
  + Int xDistance = destination Y – robot X
  + int yDistance = destination Y – robot Y
  + if (yDistance = 0) & (xDistance = 0)
    - return null
  + if (yDistance^2 > xDistance^2) I squared them because they could be negative
    - if (yDistance > 0)
      * return d
    - else
      * return u
  + else
    - if (xDistance > 0)
      * return r
    - else
      * return l

Cost estimation

* constructor (width of grid, height of grid)
  + int gridHeight
  + int gridWidth
* trip (currentX, currentY, charge, packingY, packingY, destinationX, destinationY)
  + int firstTripY = destinationY – currentY
  + firstTripY^2
  + squareroot firstTripY
  + repeat for a firstTripX, toPackX and toPackY
  + int charge
  + charge = charge – (firstTripX + firstTripY)
  + charge = charge – 2(toPackX + toPackY)
  + if (charge < 0)
    - return false
  + else
    - return true