



Mad Robot

A mad robot sets off towards the North East on a journey from the origin. It travels in stages by moving forward and then rotating on the spot.

It follows the pseudo-code on the left.

Where does the robot explode?

Thousands more problems can be found on the NRICH maths website:

<http://nrich.maths.org>

SUB JOURNEY

DISTANCE = 1000

WHILE (DISTANCE > 0.001)

MOVE DISTANCE

STOP

ROTATE (90, DEGREES, CLOCKWISE)

DISTANCE = DISTANCE / 2

END WHILE

EXPLODE

END SUB