Programmable Robot

Playground: Grid Map

Write a 2D list of size 20 and have the numbers in the program represent instructions of code. Each pair of numbers represents a command of a direction and a quantity.

1 Forward
2 Backward
3 Left
4 Right
0 stop

The quantity is either an angle in degrees for left/right turning, for an amount in mm to drive forward or backward.

Use a series of if statements (can be nested as necessary) to accomplish this task. Draw a flowchart for this assignment to help you with designing your code. Also show me your flowchart.

Once the robot reaches either a 0 in the 1st element in the pair, or the end of the 2D list, the program stops.

Example:
1   200
4   90
0   0

This will move forward 200 mm and then turn to the right 90 degrees.