Start at 4,1.

File transcription complete!

Initial State:

OOOOOOOOO

OSSSSSOKO

OSOOSSOOO

OSOSSSSSO

OMOKOOSOO

OOOOOOOOO

Final Layout:

OOOOOOOOO

O22223OKO

O1OOX3OOO

O1O344XXO

O1OKOOXOO

OOOOOOOOO

Findeth yon keys: U U U R R R R D D L L D

it went (ignoring multiples of the same direction), up, right, down, ( right, ((right) backtrack, down) backtrack) backtrack, left, (up) backtrack, left, down.