Approach.

1. Positive test cases to test response code, response time, response schema and response header.
2. Different data sets combination to see if working fine as expected.
3. Negative testing for response codes and check error responses.

Assumptions:

1. Instructions are only accepted as Uppercase and not lowercase. If that’s not the case we have bug here where input it treated as invalid and we get 400.
2. The max time api will take to return response is 10s is considered for performance check).
3. Each Instruction moves robot by 1 so decimals like 0.5, 0.1 are not valid for patches as robot will only move horizontal and vertical one coord at a time.
4. Instructions can be empty.