# GUI User Manual

## 1  Online Mode

In this mode, the `GUI` interacts with the `Manager` that provides all the necessary files to display a scenario and a path. Specifically, after clicking on the "Connect to Server" button the `GUI` loads the workspace, robot and queries files (described later on) that are sent by `Manager`, and displays them on the screen. Every once in a while, `GUI` receives a new path filename from `Manager` and displays an animation of a robot moving along this path.

## 2  Offline Mode

This mode allows you to create new scenarios and manually display paths produced by your algorithm. We now describe how to generate a new scenario.

1. *Creation of Workspace:* The obstacles are defined as polygons. Click on "Draw Obstacle" and define its vertices by clicking on the workspace panel to the left of the buttons. When you are done click near the first vertex of the obstacle to close the polygon.

2. *Creation of Robot:* As the the blue and red robots are identical a single polygon of the robots has to be defined. Click on "Draw Robots" and follow the steps for creation of an obstacles. This operation also adds a single query.

3. *Adding Queries:* Queries are represented by the robot's polygon. To add a new query click on "Add Query". To *translate* a query select it using a double-click and immediately afterwards drag it to the desired location. To *rotate* a query select it and use the mouse wheel.

These elements can be saved and loaded using the respective files. To load a path and display it use the "Load Path" and "Animate" buttons, respectively.

## 3  Input Files

Workspace, robot, queries, and path can be saved as text files. A description of their format is given in `input_format` folder. An additional auxiliary "state" file is used by the online mode to display the visited queries in the color of the visited robot.