Receding Horizon Temporal Logic Control in Dynamic Environments

You can download the Python implementation of the algorithm presented in [1] [[here](https://sites.bu.edu/hyness/lomap/)](https://calinbelta.com/wp-content/uploads/2024/01/rhtlc.zip).  
The zip file already contains the LTL Optimal Multi-Agent Planner (LOMAP) package, which is required by the algorithm.  
For more information on LOMAP, see [here](https://calinbelta.com/wp-content/uploads/2024/01/LOMAP.docx) .

How to use:

Extract the zip archive.

Run the main.py file. If any of the required packages are missing, check the error messages to install them.

Once run, the implementation should start simulating the second case-study in [1].

If you want to simulate other case studies, change the case variable on line 109 of main.py to case1 or case3.

*Note:* A preliminary version of this work appeared in [2].

[1] A. Ulusoy, C. Belta, “Receding Horizon Temporal Logic Control in Dynamic Environments”, *International Journal of Robotics Research*, *to appear*.  
[2] A. Ulusoy, M. Marrazzo, C. Belta, “Receding Horizon Control in Dynamic Environments from Temporal Logic Specifications,” *Robotics: Science and Systems 2013*, Berlin, Germany, 2013.