

Project Milestones and Goals

Table 1: Milestones and Goals

Date	Milestone	Points
2021-03-10	Basic Coding Framework	5
2021-03-20	Version 1: An RL agent with two different Mlp modules.	5
2021-03-30	Version 2: An RL agent with two different RNN modules.	5
2021-04-10	Version 3: An RL agent with 2 RNN + 2 Mlp, test on Multi-Robot Continuous Control problem.	10

0.1 Basic Coding Framework

Setup up the coding framework on GitHub. The project framework will be based on Stable-Baselines3 and other packages.

0.2 Version 1: An RL agent with two different Mlp modules

The simplest case, there are two different Mlp modules. The agent would make decision based on the concatenation of the activations of these two modules. The system will then test on single-body locomotion task.

0.3 Version 2: An RL agent with two different RNN modules

Replace two Mlp modules with two different RNN modules. It will be nice if they have different time scales.

0.4 Version 3: An RL agent with 2 RNN + 2 Mlp

Combine Mlp and RNN modules together to produce a better abstraction of the observations. The system will then be tested on multi-body locomotion task.

The performance of different versions will be compared.