Swarm Intelligence Cup

Lab42 (https://lab42.global) recently announced its new competition, the *Swarm Intelligence Cup*. The competition involves designing a swarm of elementary agents that can control a simple virtual robot in a simulation. The swarm must complete three tasks, including navigating a straight path, following a winding path, and sorting objects by color. The goal is to demonstrate the potential of swarm intelligence in controlling robots with robustness and adaptability. The simulation of the swarm will be based on the behavior of bees, where agents collectively evaluate and select the most suitable decision. The robot in the simulation will be considered "dumb," and its sensor data will be transferred to the swarm simulation, which will generate actuator signals to operate the robot. The competition officially starts **May 8, 2023** and ends **June 30, 2023**.

In this project, we are mainly interested in participating in this competition, but we also aim to propose approaches that will have a lasting impact beyond the competition.

We will have weekly meetings to address questions, discuss progress and think about future ideas.

Requirements: Strong knowledge in Python and machine learning. Experience with PyTorch (or TensorFlow) is an advantage.

Interested? Please contact me for more details!

Contact

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References

https://lab42.global/wp-content/uploads/2023/04/Lab42-Swarm-Intelligence-Cup.pdf