

SWISSBOT - Team Contracts

MEMBERS:

Tristan McGinnis (mcginnntw@mail.uc.edu) – Developer

Faculty Advisor:

Weekly Schedule

Meetings every Monday and Thursday starting at 4:00 PM

Project Description

This project involves designing and implementing a network of machine-learning-driven auto-aiming bots for the Source engine-based game *Team Fortress 2* (2007).

SWISSBOT will leverage SourceMod, C++, and SourcePawn as the core development tools. The bots will be trained from a reward-based system to emulate intelligent player behavior, autonomously navigating gameplay objectives by utilizing contextual decision-making, algorithm-calculated precision, and adaptive strategies based on real-time game state data.

The capabilities and performance of the bots will be supported by a robust training pipeline specified for each of the nine available classes available to play. The end goal is to make an efficient team consisting of each of the nine playable classes that would perform expertly against a team of twelve human players. Additionally, this system's architecture will focus on modularity and scalability, allowing multiple bots to operate cohesively within a server environment.

Importantly, this project will include considerations and execution of ethical design and safety, ensuring that the bots are solely used for testing and education rather than malicious exploitation.

Signatures

Team Member 1: _____

Faculty Advisor: _____