

Rock–Paper–Scissors–Plus (AI Referee)

This project implements a simple AI referee for a Rock–Paper–Scissors–Plus game.

The referee runs a best-of-3 game, enforces rules, tracks state, and provides clear round-by-round feedback.

State Model

Game state is stored in a Python dictionary that persists across turns.

It tracks the current round, user and bot scores, and whether each player has already used the bomb move.

Agent and Tool Design

The solution is designed around a single referee agent.

Core game logic is separated into tools:

- validate_move: checks user input and bomb usage
- resolve_round: determines the round winner based on rules
- update_game_state: updates scores, rounds, and bomb state

Google ADK concepts (agents and tools) are followed conceptually.

Lightweight local stubs are used so the code runs reliably without depending on non-public ADK imports.

Tradeoffs

The focus was on correctness, clear state management, and clean logic over UI polish or advanced architecture.

Improvements

With more time, this could be extended with better conversational UX, test cases for game logic, and a richer agent-driven interaction loop.