

CHOMP

The team-preview solver inside ABRA

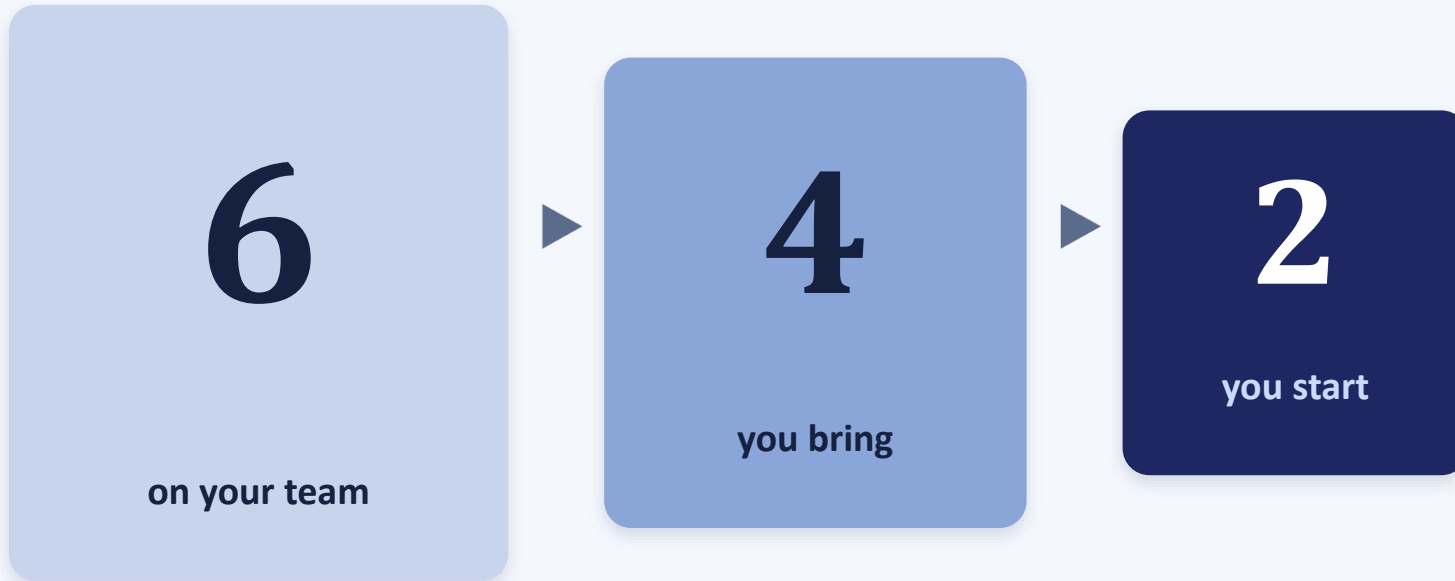
How a computer picks which Pokémon to bring, and why it picks with dice — in plain English

PLAIN ENGLISH

willhoop · October 2026 · version 3.0.0 · Champions VGC Reg M-C

Every match starts with one secret choice

You build a team of six Pokémon. You take only four into the match, and only two start on the field. Both players choose at the same time, and neither sees the other's choice until the match starts.



Open team sheets

In this format both players see the other team's full sheet: every Pokémon, item, ability and move. Only the exact stat spreads stay hidden.

So the puzzle is not "what do they have?" It is "what will they choose, knowing what I have?"

90 choices each, and no single right answer

90

ways to pick four and choose two of them to start

8,100

pairings of my choice against theirs



Both move at once

You cannot react to their choice. You must guess it.



Any fixed answer can be read

If you always pick the same four, a good opponent learns it and plans for it.



Like rock-paper-scissors

The safest plan is to choose with the right odds, not to choose the same thing every time.

Score every pairing, then solve the game

A gut-feel pick

- Picks the four that “usually” work for this team.
- Ignores who the opponent is.
- Picks the same way every time, so it can be read.

How CHOMP decides

-  **A chance to win for every pairing**
Learned from thousands of simulated and real matches.
-  **Built from real game facts**
Who knocks out whom, and who moves first, from ABRA’s game simulator.
-  **Solved like a game, not a list**
It finds the odds that an opponent cannot exploit.
-  **Then it rolls the dice**
It picks one choice using those odds.

Four steps at every team preview

1

Read both sheets

It sees your six and their six,
with items, abilities and
moves.

2

Score 8,100 pairings

A model trained on 25,008
simulated matches, plus real
ones, gives each pairing a
chance to win.

3

Find the safe odds

A game solver works out how
often to play each choice.

4

Adjust in a best-of-three

In games 2 and 3 it leans
halfway towards punishing
what the opponent brought
last time.

It beats habit. It does not yet beat a thinking human.

First try: failed

Version 0 was no better than a coin

Against the picks human players actually made, it won 43% of test games. The test said: not better. It was kept only as a yardstick.

Second try: passed its tests

Version 1 learned from 25,008 simulated matches

The tests and their pass marks were written down before the first match was played, so the result could not be bent to fit.

56%

of test games won against the pick most players make with that team (524 games)

47%

against the pick a human made after seeing the opponent (400 games): no clear edge

18 ms

average time to solve the 8,100 pairings once they are scored

What it does not do yet

1

It has no clear edge over a good human

A human who has seen the opponent picks about as well as CHOMP.

2

It learned from a simulator

Where ABRA's simulator and the real game differ, CHOMP can be wrong.

3

Its ladder record is too short to judge

Each early ladder run is 15 to 20 series. A fair verdict needs 100.

4

A richer version did not help

Adding stat spreads and weather and terrain did not beat version 1, so it was not used.

Inside ABRA, playing on the ladder

Today

- CHOMP is part of ABRA, an AI for competitive Pokémon.
- ABRA's player, ROTOM, asks CHOMP at every team preview on Pokémon Showdown.
- If CHOMP ever fails, the team's usual pick is used instead, and the failure is counted.

Retired

- Until version 3.0.0, "CHOMP" was a browser add-on for the previous rules (Reg M-B).
- It gave one fixed answer from a hand-tuned damage score.
- It is retired. Its code is kept as history, not maintained.

THE BOTTOM LINE

A secret choice, solved like a game.

CHOMP reads both team sheets, scores every pairing, and picks with odds an opponent cannot exploit. It beats habit; it has not yet shown it beats a human who has seen the opponent.

Every figure, its source and the mathematics:

CHOMP White Paper — <https://willhoop.github.io/docs/CHOMP/CHOMP-whitepaper.html>