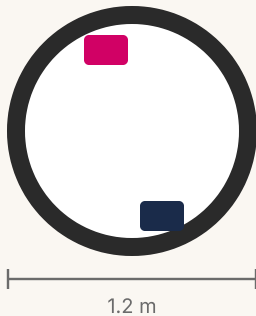




Sumo Rules

Read this yourself. Everything you need to know to win — or to lose well.



The ring is a circle of black tape about 1.2 m across.

Inside the circle is in. Touching the tape still counts as in.

Completely off the tape, with every wheel out, is out.

How a match works

- 1 Two robots start on **opposite edges of the ring**, facing each other.
- 2 Put your robot down, start your program, and **take your hands away**. Do not hold it, steady it, or aim it.
- 3 The referee counts down and says **go**. Nobody touches anything after that.
- 4 A match lasts **60 seconds**.
- 5 When it is over, pick up your robot, shake hands, and write down what happened in your notebook. **Every match, every time**.

You win when

The other robot is **completely outside the ring** — every wheel off the tape. If neither robot is out after 60 seconds, it is a **draw** and you both get a point.

What you cannot do

- **No touching.** Once the match starts, hands off. If your robot stops, it stops. That is part of the match.
- **No breaking things.** Push, wedge and lift all fine. Nothing built to damage another robot — no blades, no hammers, nothing sharp.
- **No traps.** Nothing that grabs, ties down, or holds the other robot in place.
- **LEGO only.** No tape, glue, or added weight from outside your own kit.
- **Fit inside a 30 cm square** at the start. After that, unfold however you like.

Before every match — run this list

Most matches are lost before they start. Go through this every single time.

Six things to check

- ☐ **Battery.** A tired robot pushes weakly and drives short. Charge between matches.
- ☐ **Cables.** Motors in B and C. Color sensor in 3. Ultrasonic in 4. Touch in 1.
- ☐ **Re-read your color threshold.** The lights in the room are different today than they were last week. Take a new reading on the floor and on the tape.
- ☐ **Nothing loose.** Push on every beam. Anything that wobbles will fall off when you get hit.
- ☐ **Program downloaded.** Not just saved on the laptop — actually sent to the robot.
- ☐ **Wheels clean.** Dust on the tires is lost grip, and grip is how you push.

The tournament

It is a **round robin**. That means **every team plays every other team** — so losing a match does not knock you out. You keep playing until everyone has faced everyone.

Wins are worth 2 points, draws 1, losses 0. Most points at the end wins.

There are two ways to win the night

One award goes to the team with the **most points**. A second goes to the **best design** — the smartest build, judged on the choices you made and how well you can explain them.

A robot that loses every match can still win the design award. Your notebook is how you make that case.

If you lose

You will lose some matches. Everyone does. What separates a good engineer from a frustrated one is what happens in the next ninety seconds.

Ask one question: what actually beat me? Was I pushed because their gearing was stronger, or did I drive myself out because my threshold was wrong? Those are different problems with different fixes.

Write the answer in your notebook before the next match. That is the entire engineering process, and you are doing it in real time.

A word about how we do this

Push hard, play fair, and shake hands after every match. Help a team whose robot has fallen apart, even if you are about to face them — especially then. We would rather lose well than win badly.

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