

Server Farm

Ages 10–14 + parents · 1–5 players · about 30 minutes · no screens

OBJECTIVE

You run the data center an AI app lives in. For 8 hours, more and more people send it jobs. GPU racks do the work, but every rack needs power and makes heat. Spend the coins you earn on racks, coolers, solar panels and batteries. Score one point for every job you finish, minus one for every job that gives up waiting.

MATERIALS

A Farm Sheet per player, 8 Event cards, one six-sided die, and a pencil each.

SETUP

- 1 Each player takes a Farm Sheet and a pencil. Your farm has 8 machine slots. Start with 1 GPU rack, 1 Cooler, and 4 coins.
- 2 Pick a Host. The Host shuffles the 8 Event cards face-down and holds the die. Everyone plays the same hour at the same time.

EACH HOUR

- 1 **EVENT:** the Host flips the top Event card and reads it out. It's for everyone this hour.
- 2 **JOB:** the Host rolls. Jobs arriving = the roll + the hour number, plus any extras from the Event. Add them to your queue.
- 3 **POWER:** the grid gives 3 power. In hours 1–5 each solar panel gives 1 more. Use that first, then stored battery power. Each rack needs 1 power; racks without power are off. Each Battery stores up to 2 leftover power for later.
- 4 **HEAT:** each Cooler keeps 2 running racks at full speed. Every other running rack overheats and slows down.
- 5 **WORK:** full-speed racks finish 3 jobs each, slow racks 1. Take those jobs out of your queue and earn 1 coin per job.
- 6 **WAIT:** if more than 6 jobs are still waiting, the extras give up and leave. Write them down as dropped.
- 7 **BUILD:** spend coins on new machines (GPU rack 5, Cooler 3, Solar panel 4, Battery 3). Draw each new machine in an empty slot. You can't build after hour 8.

HOW TO SCORE

- 1 Score = jobs finished minus jobs dropped. Coins left over don't count.
- 2 Most points after the last hour wins. Ties share the win.
- 3 Solo: beat 40 points, then beat your own best with the same shuffled deck.

TIPS

- 1 Racks without coolers run hot. In 500 practice games with the same dice, a farm that kept a Cooler for every 2 racks beat a racks-only farm every single time.
- 2 The grid only runs 3 racks. Your 4th rack needs solar or a battery.
- 3 Solar is free power by day and nothing at night (hours 6–8). Batteries save daytime leftovers for later.
- 4 Saving every coin loses: jobs pile up and people leave.

WHAT THE FARM TEACHES

- 1 AI lives in buildings: every chatbot answer runs on real computers somewhere, in rooms full of racks.
- 2 Power: those computers run on electricity, and a big data center can use as much as a whole town.
- 3 Heat: computers turn electricity into heat. Cooling them takes more energy, and many data centers use water too.
- 4 Bottlenecks: adding chips doesn't help if there's no power or cooling for them. Engineers balance all three.
- 5 Demand: more people using AI means more machines. That's why companies keep building data centers.

VARIANTS

- 1 Small grid: the grid only gives 2 power all game. Solar and batteries matter a lot more. Can you still beat 40?
- 2 Heat dome: shuffle in a second Heatwave instead of a Quiet hour.
- 3 Teacher mode: the Host plays on the board for the whole class, and teams vote on each build.

PRINT TONIGHT

Farm Sheet on plain paper, one per player. Event cards on Avery 5388 at Actual Size / 100% (never Fit to page). You also need one six-sided die and a pencil for each player.

Farm Sheet: 1 page, landscape, one per player. 8 Event cards = 3 Avery 5388 sheets.