

Tika, Pip, Coco and Sully went to see a rainforest.

Tika, Pip, Coco, Sully



Sully started counting colors. He ran out of claws.



Sully held still. Then a leaf blinked at him.



Sully learned its name. A chameleon changes color to match where it sits.

Sully



Build a chameleon that changes color too.

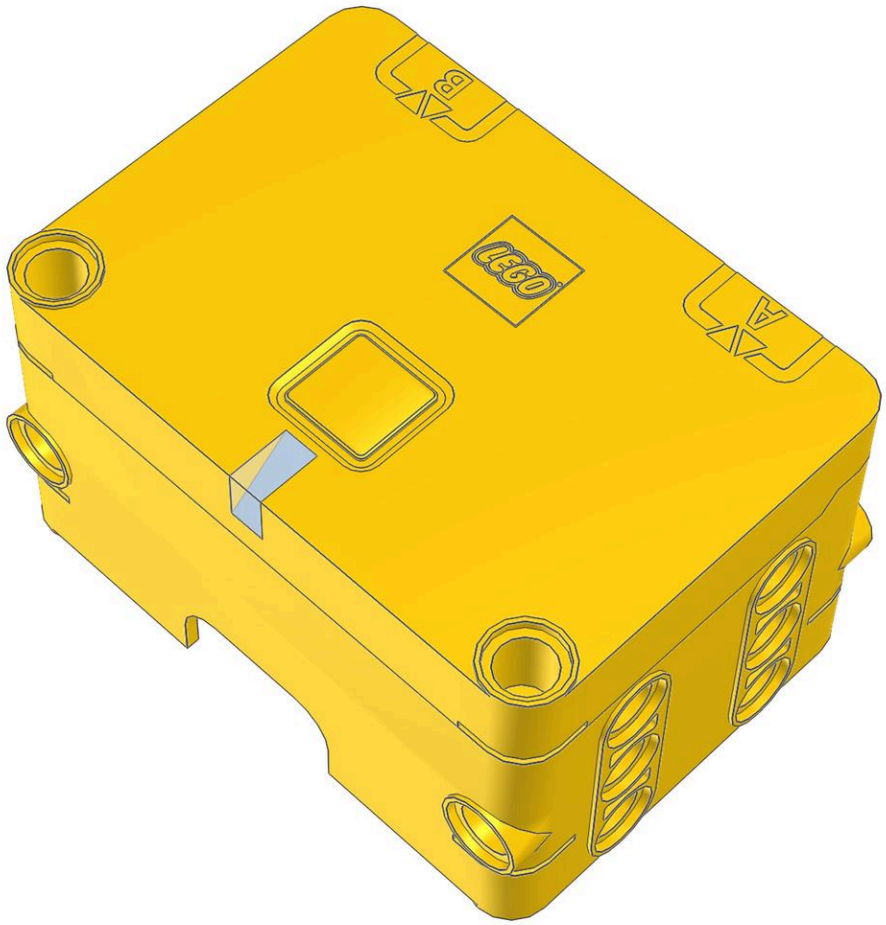
1 hub

Essential

ADD

- 1x Bright Yellow Small Hub | kit 45345

Stand the yellow hub on the table, the little USB shape facing you.



Check: The hub sits flat and does not rock. Looking at the wall facing you, you see the little USB shape, not the two round ports.

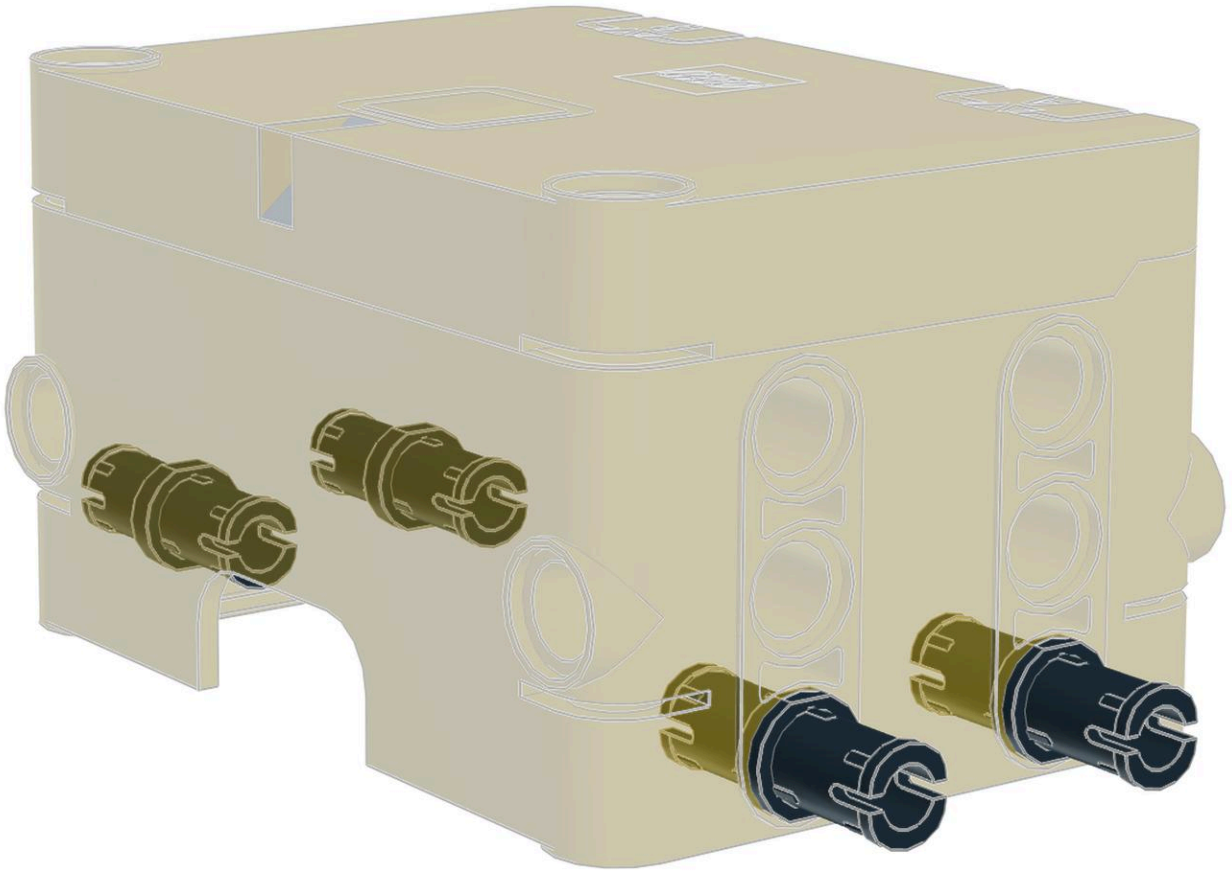
2 hip pins

Essential

ADD

- 4x Black connector peg (friction) | kit 45345

Four pegs go into the BOTTOM row only -- two per side.



Check: Four pegs stick out low on the hub, two on the left and two on the right, all at the same height, just above the table.

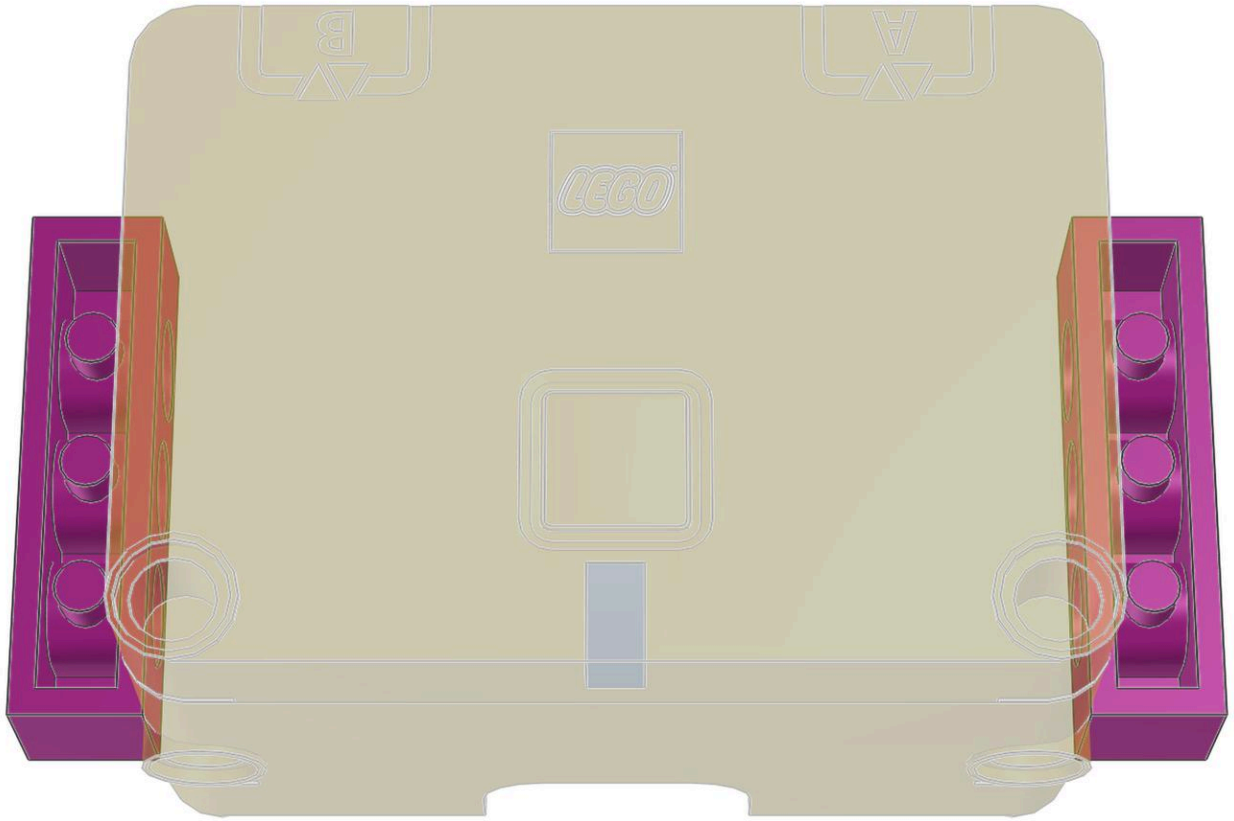
3 hips

Essential

ADD

- 2x Bright Reddish Violet 1x4 Technic brick | kit 45345

Press a purple 1x4 onto each pair, studs pointing down.



Check: Both hips sit flush on the hub sides. The studs face the table.

4 sockets

Essential

ADD

- 4x Medium Stone Grey ball-cup plate | kit 45345

Press a grey cup onto each end of each hip, cups facing out.



Check: Four cups stick out, two per side, front and back. They do not wiggle off.

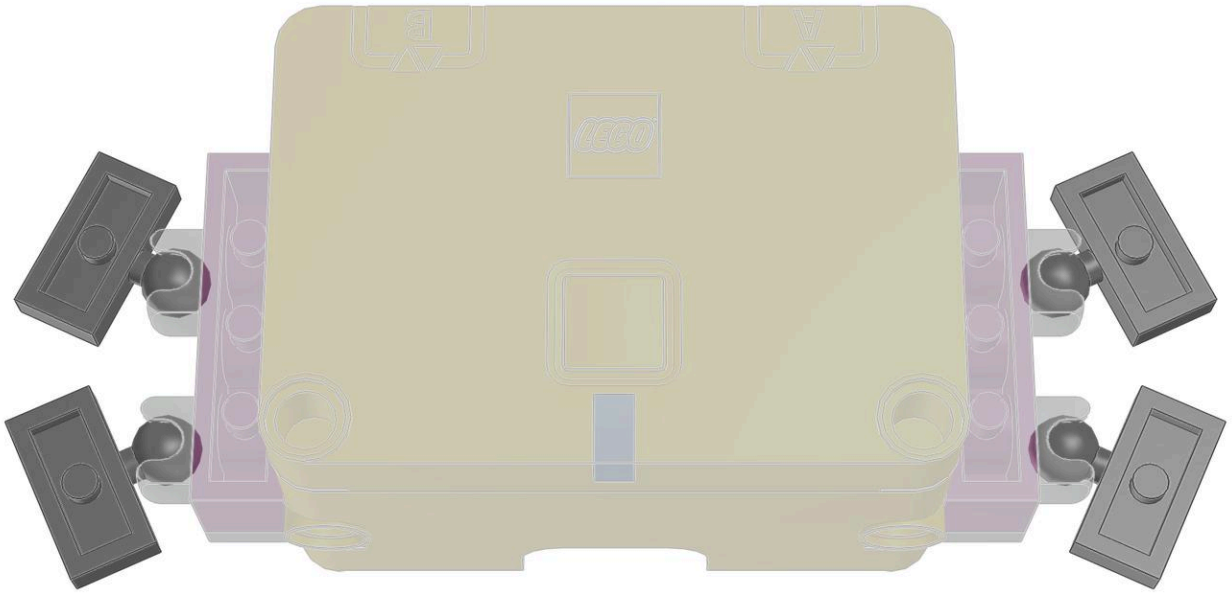
5 feet

Essential

ADD

- 4x Dark Stone Grey ball-plate | kit 45345

Pop a ball-plate into each cup and splay the feet.



Check: The chameleon stands on four ball-joint feet. You can pose a leg and it stays.

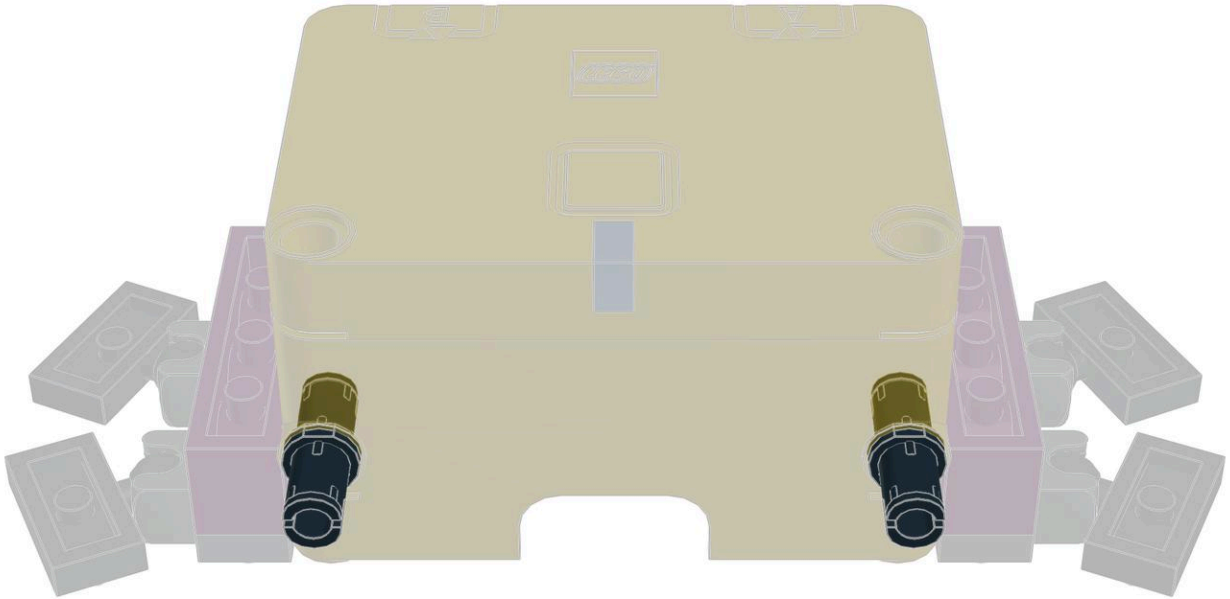
6 front pins

Essential

ADD

- 2x Black connector peg (friction) | kit 45345

Push two pegs into the short wall with the little USB shape.



Check: Two pegs stick straight forward, level with each other.

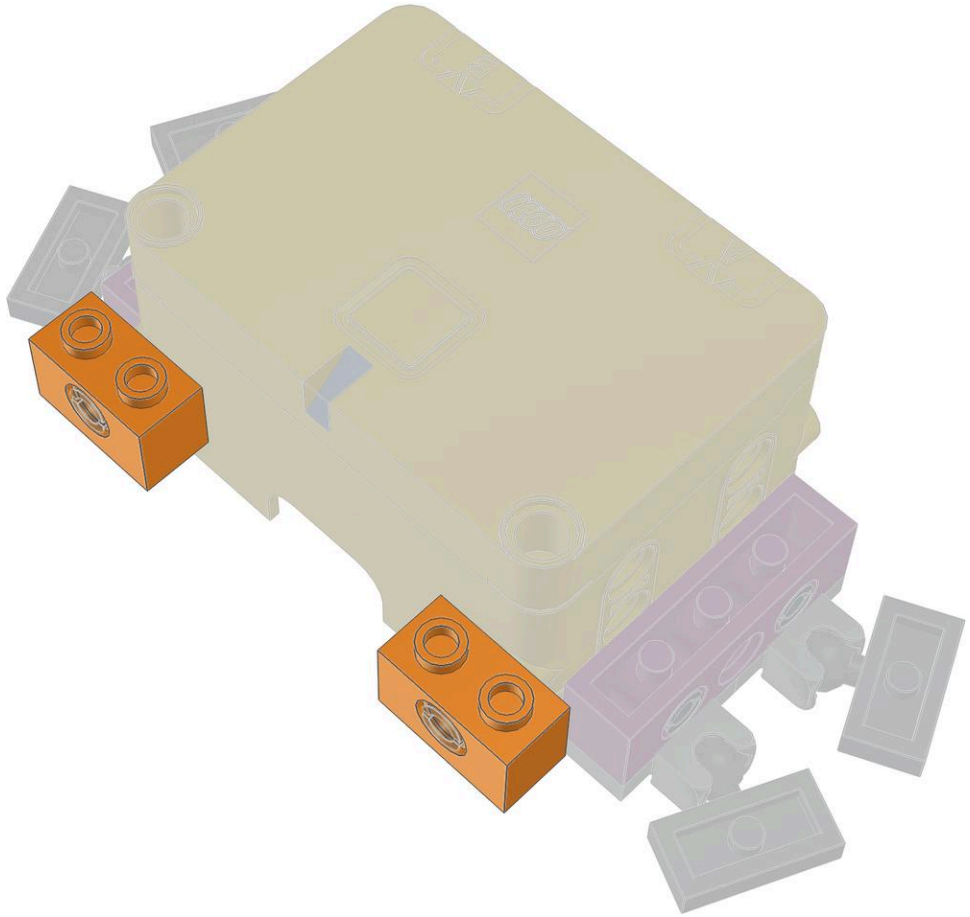
7 brow bricks

Essential

ADD

- 2x Bright Orange 1x2 Technic brick | kit 45345

Two separate orange bricks on the pegs. They can still twist -- that is fine.



Check: Two small orange bricks, one on each peg, with a thin gap between them.

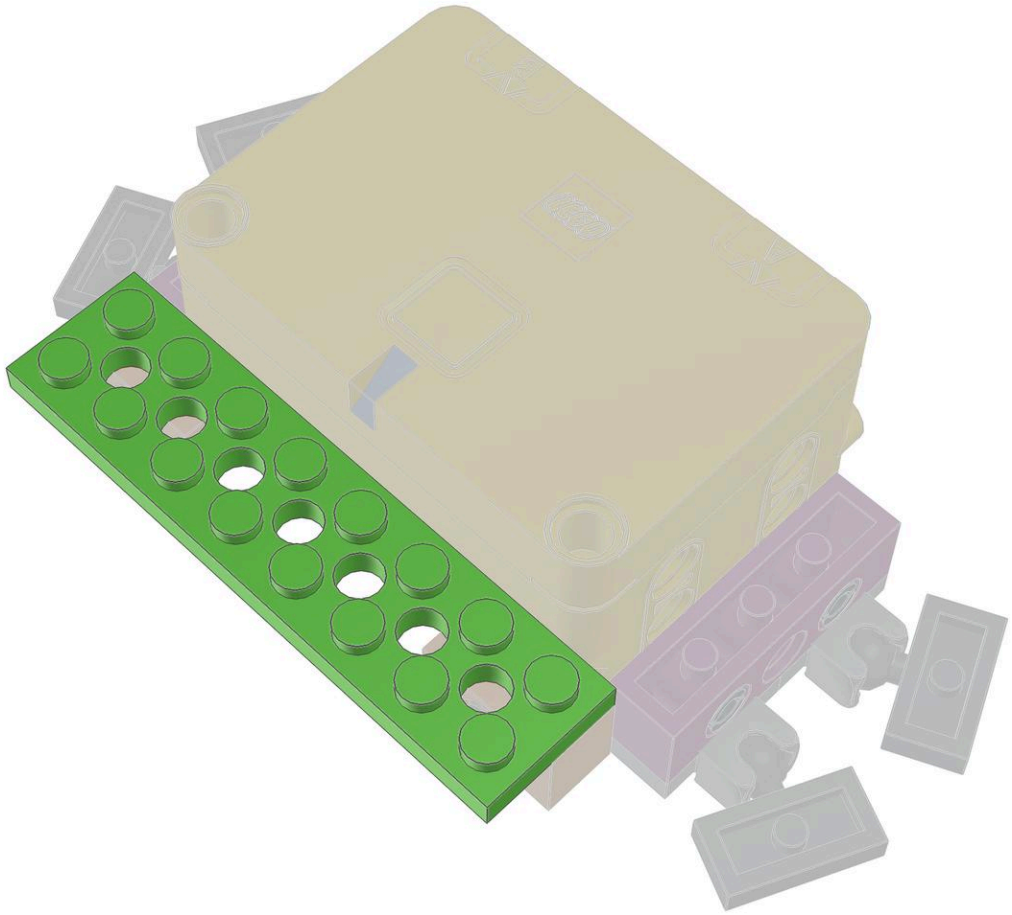
8 brow plate

Essential

ADD

- 1x Bright Green 2x8 plate with holes | kit 45345

The green plate presses across both bricks at once. Now nothing twists.



Check: Two separate orange bricks sit side by side under the green plate, which lies flat across both of them. Nothing wiggles.

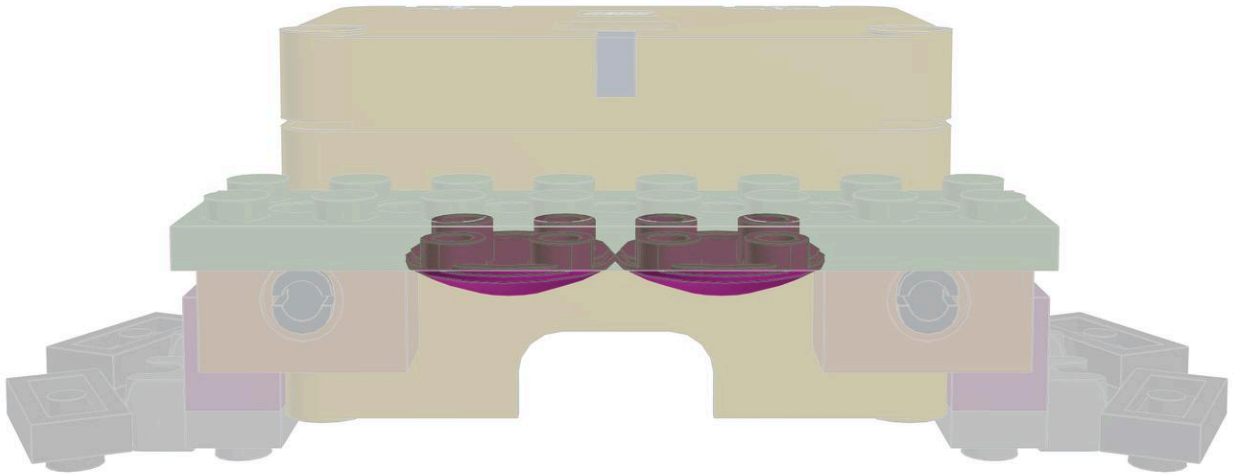
9 cheek bumps

Essential

ADD

- 2x Bright Reddish Violet round slide shoe 2x2 | kit 45345

Press a purple bump into each open tube under the middle of the plate. Cheeks, not eyes.



Check: Two round purple bumps peek out from under the middle of the plate, one on each side of the centre line. Not eyes -- there is no housing here for an eye to look out of, just two cheeks.

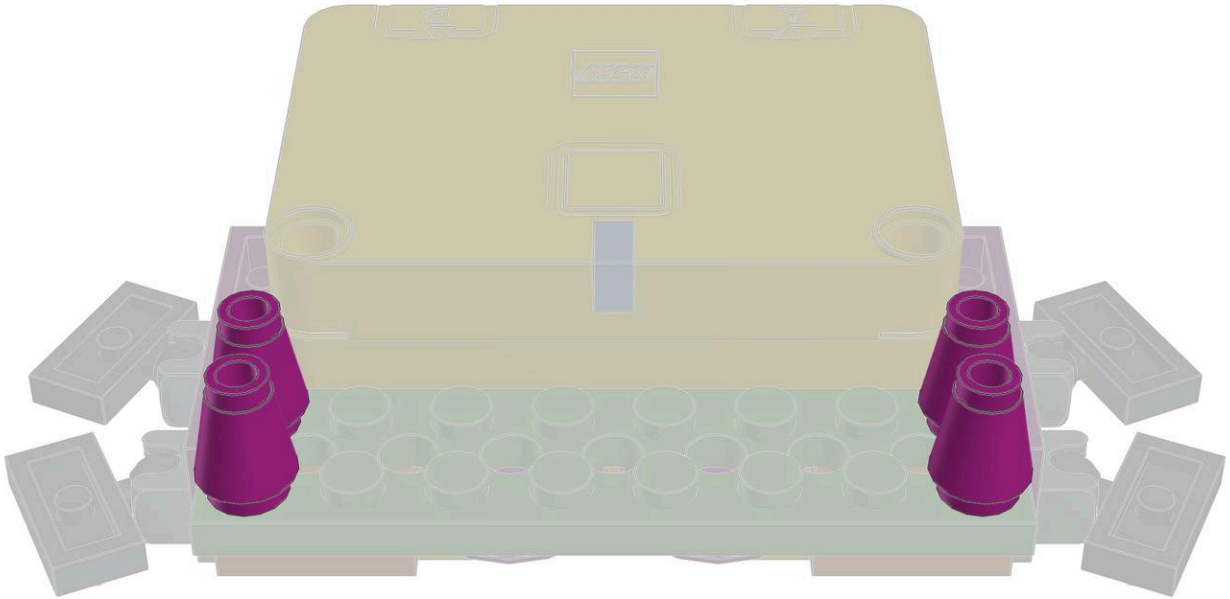
10 brow horns

Essential

ADD

- 4x Bright Reddish Violet 1x1 cone | kit 45345

Two purple horns stand down each outside edge of the brow.



Check: A row of two purple horns down each outside edge of the brow.

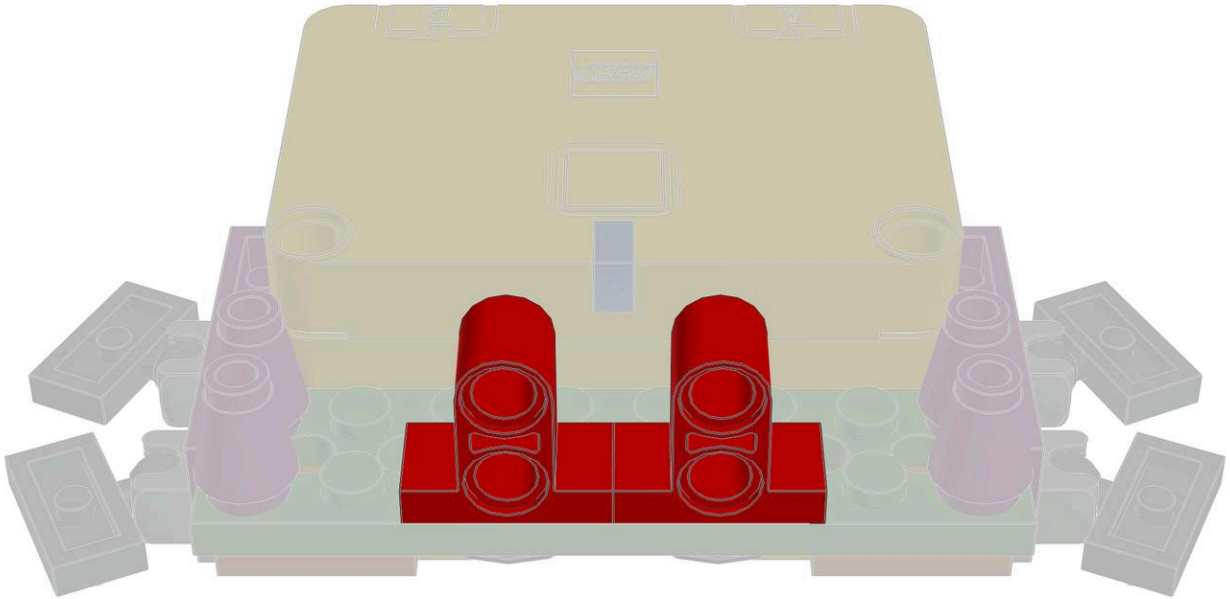
11 T-beams

Essential

ADD

- 2x Bright Red T-beam with 1x2 plate | kit 45345

Press two red T-beams onto the brow, holes facing you.



Check: Two red T's stand on the brow, holes looking at you.

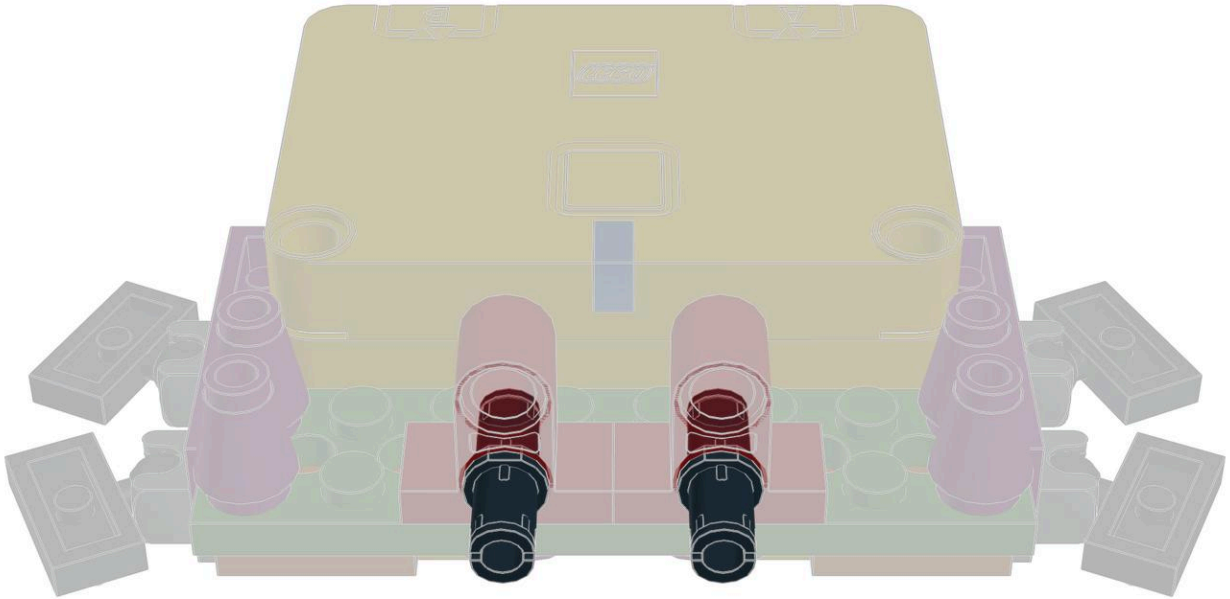
12 snout pins

Essential

ADD

- 2x Black connector peg (friction) | kit 45345

Push a peg into each T-beam so they point forward.



Check: Two pegs stick out of the T's, same height, ready for the sensor.

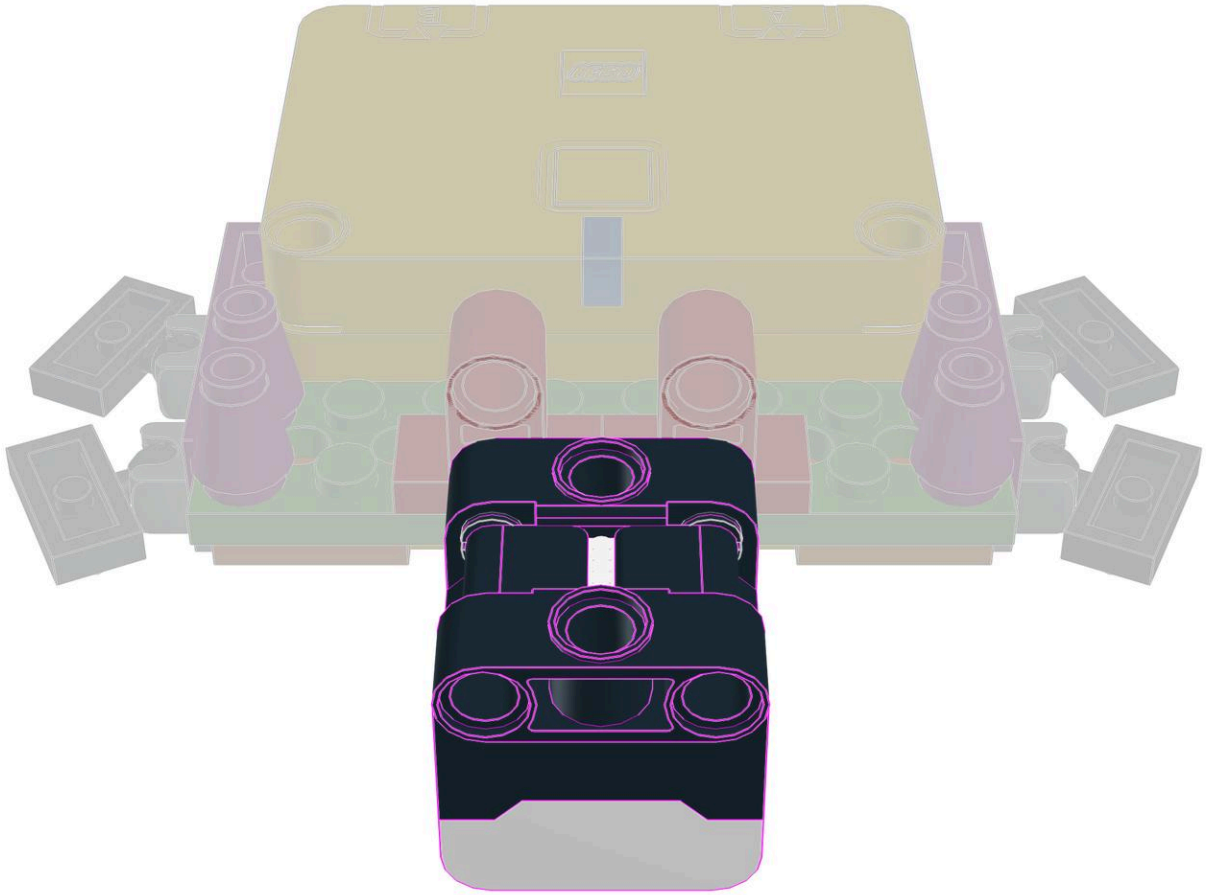
13 colour sensor

Essential

ADD

- 1x White Colour Sensor | kit 45345

Press the sensor on, lens pointing down. No cable yet.



Check: The lens looks at the floor, not at you. Peek under the head -- you should see the dark window.

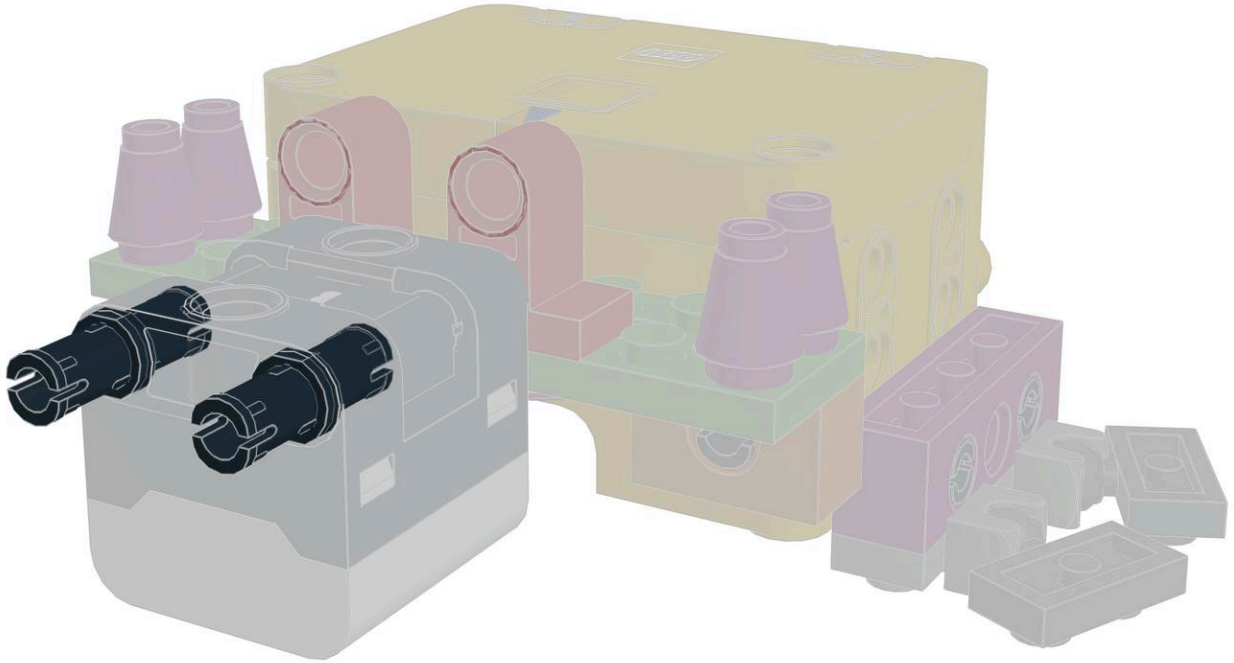
14 eye pins

Essential

ADD

- 2x Black connector peg (friction) | kit 45345

Two short pegs into the sensor's face, pointing straight at you.



Check: Two short pegs stick out of the sensor's face, side by side, the same length.

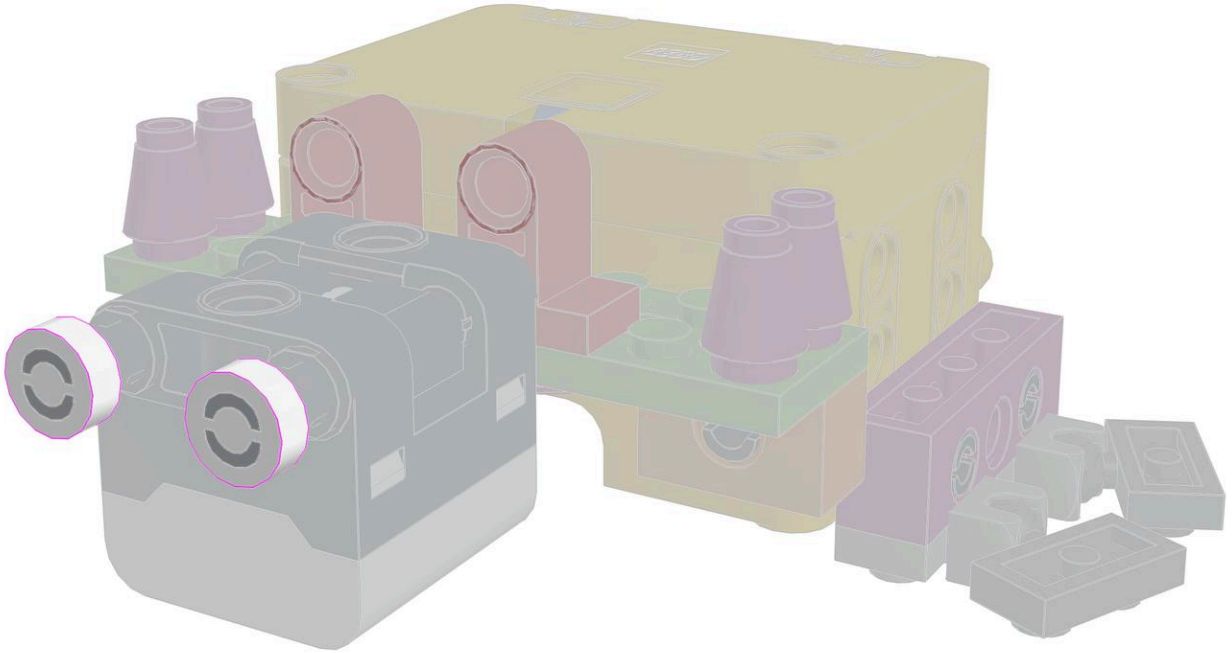
15 eyes

Essential

ADD

- 2x White round tile 1x1 | kit 45345

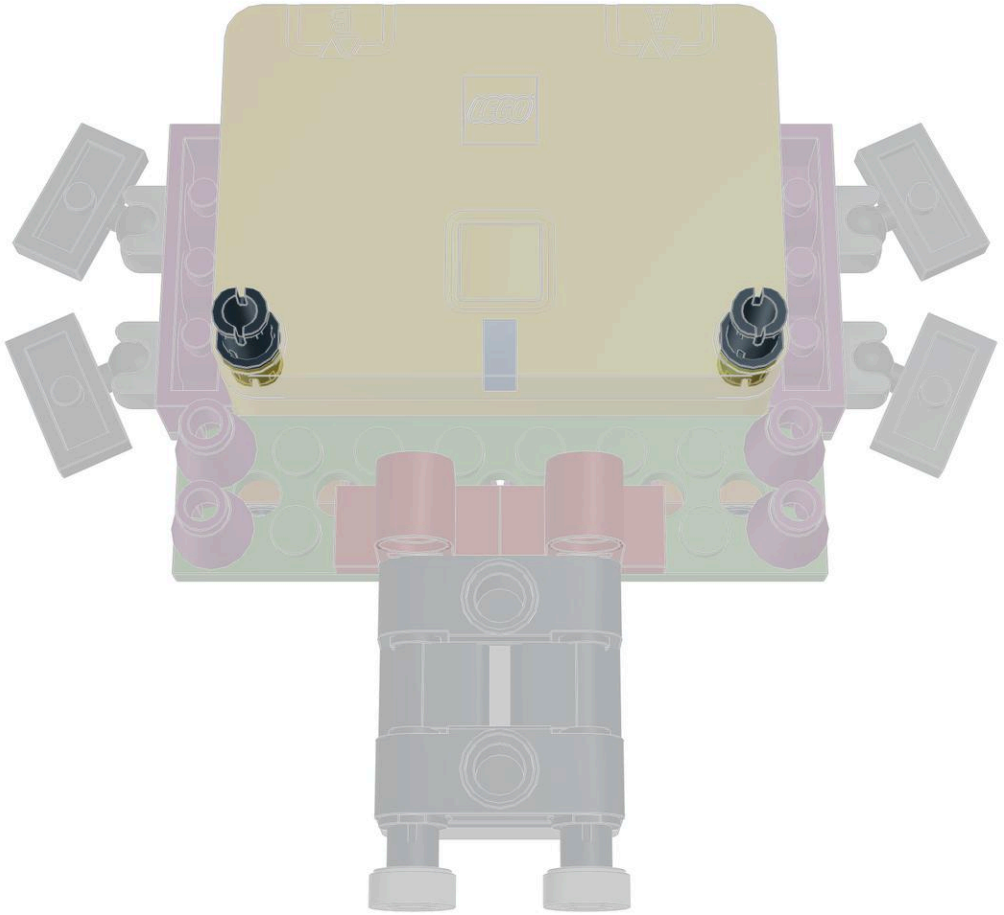
Press a white eye onto the tip of each peg.



Check: Two white eyes look out from the front of the sensor. A gentle twist is fine; they stay on.

16 top pins

Essential



ADD

- 2x Black connector peg (friction) | kit 45345

Stand two pegs up on top of the hub, near the brow end.

Check: Two pegs stand up on top of the hub, near the head.

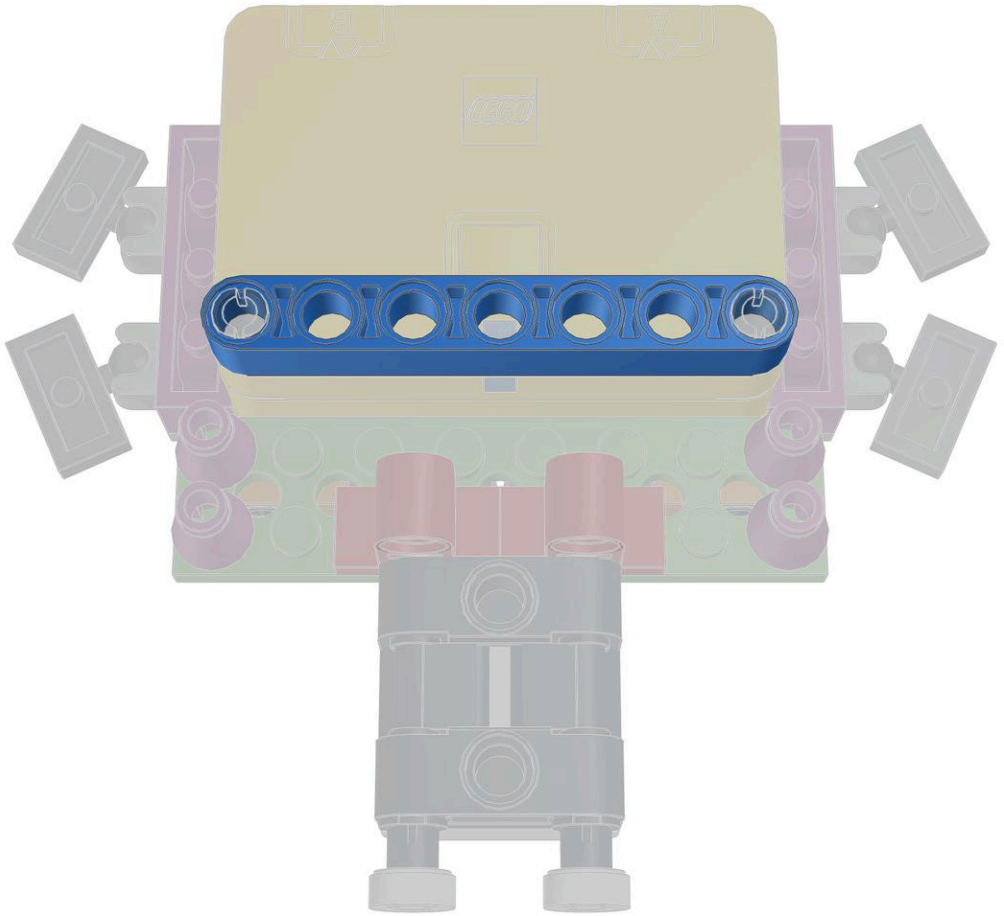
17 deck

Essential

ADD

- 1x Bright Blue 7-module beam | kit 45345

Lower the blue beam onto those two pegs.



Check: The beam sits level, just behind the brow. It does not see-saw.

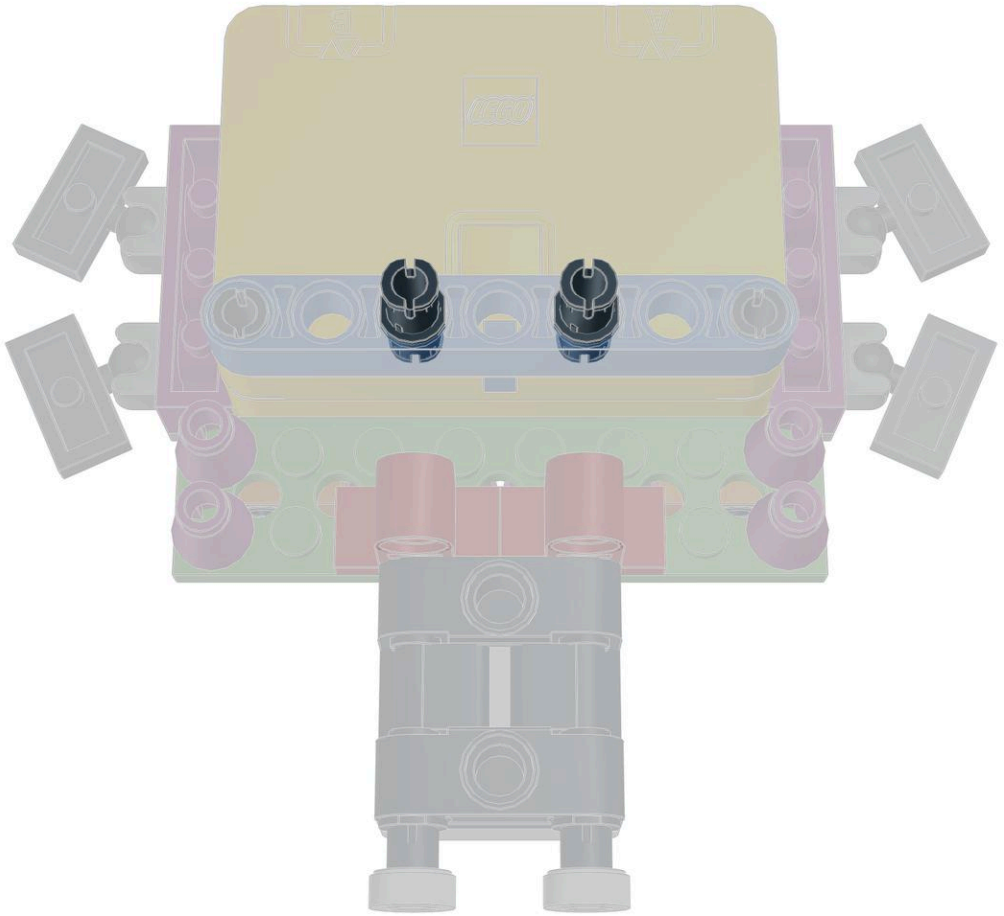
18 matrix pins

Essential

ADD

- 2x Black connector peg (friction) | kit 45345

Stand two more pegs up, closer together, in the middle of the beam.



Check: Two pegs stand up from the blue beam, closer together than the top pins.

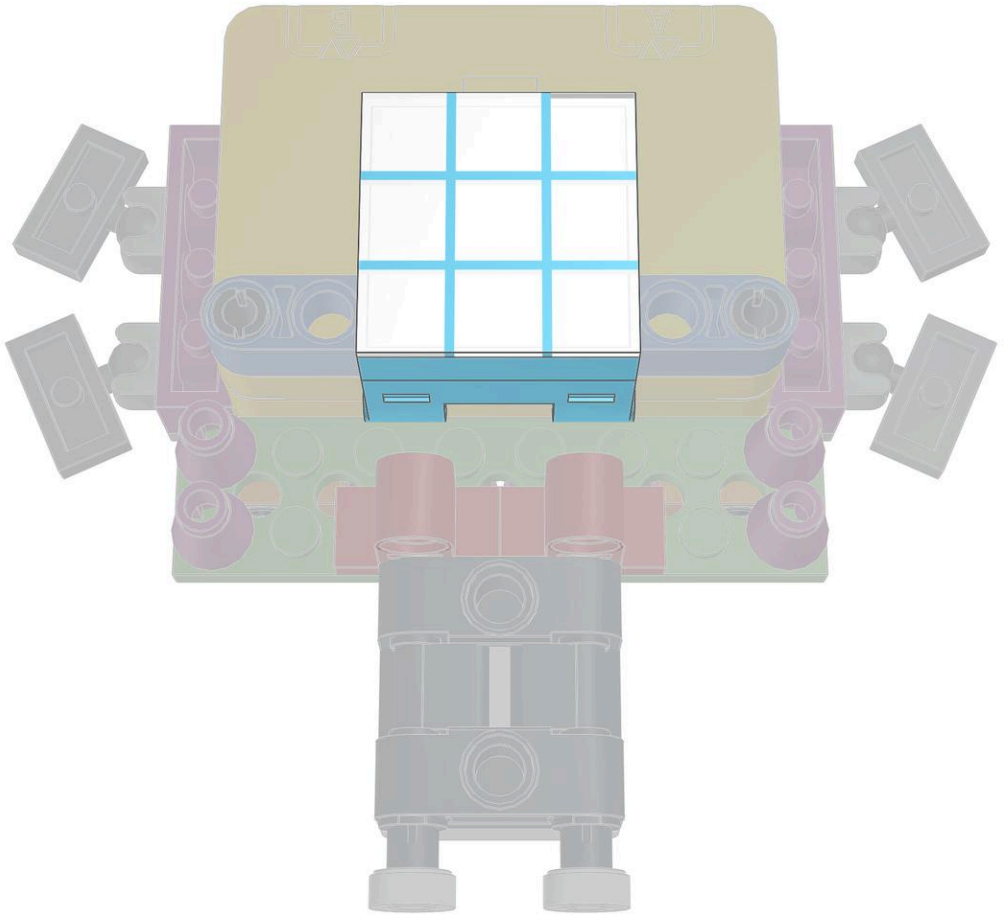
19 light matrix

Essential

ADD

- 1x Medium Azur 3x3 Colour Light Matrix | kit 45345

Press the lights on, facing up.
No cable yet.



Check: You can see all nine lights from above, sitting over the shoulders, just behind the brow.

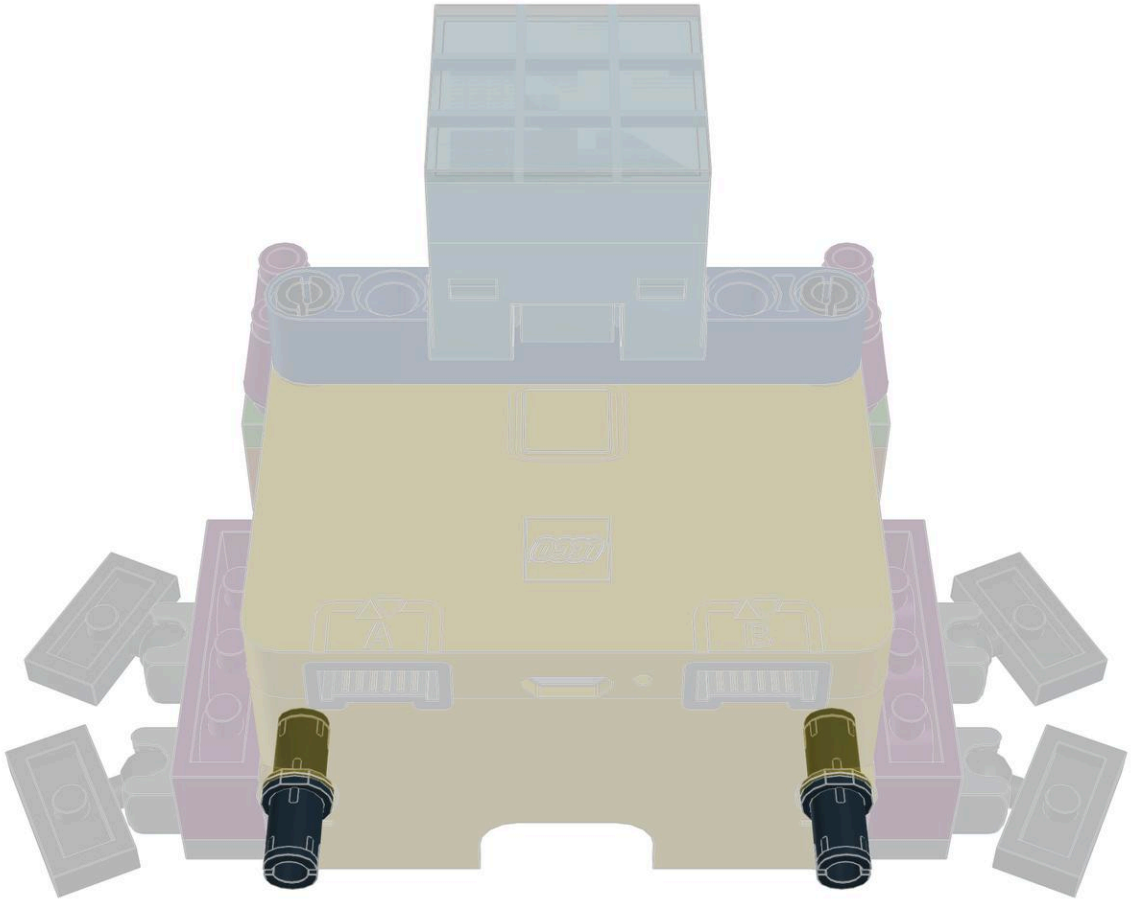
20 rear pins

Essential

ADD

- 2x Black connector peg (friction) | kit 45345

Push two pegs into the wall with the two round ports, one on each side.



Check: Two pegs stick straight back, level with each other, framing the two ports.

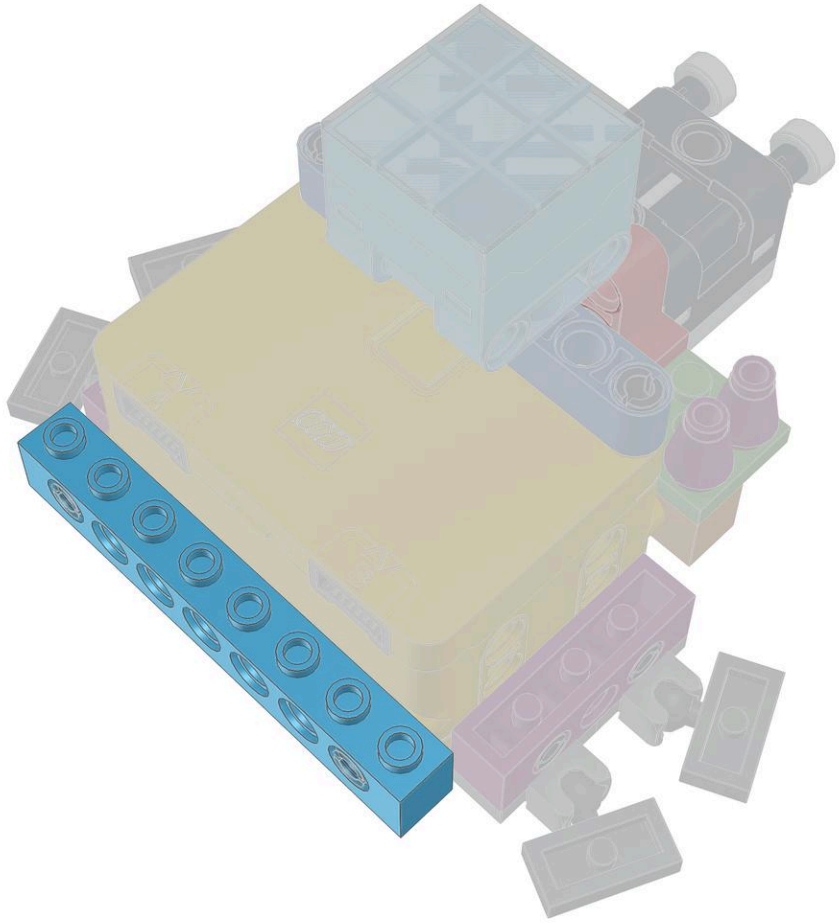
21 tail bar

Essential

ADD

- 1x Dark Azur 1x8 Technic brick | kit 45345

One long blue brick across both pegs at once.



Check: The blue bar runs the full width of the hub. It does not teeter.

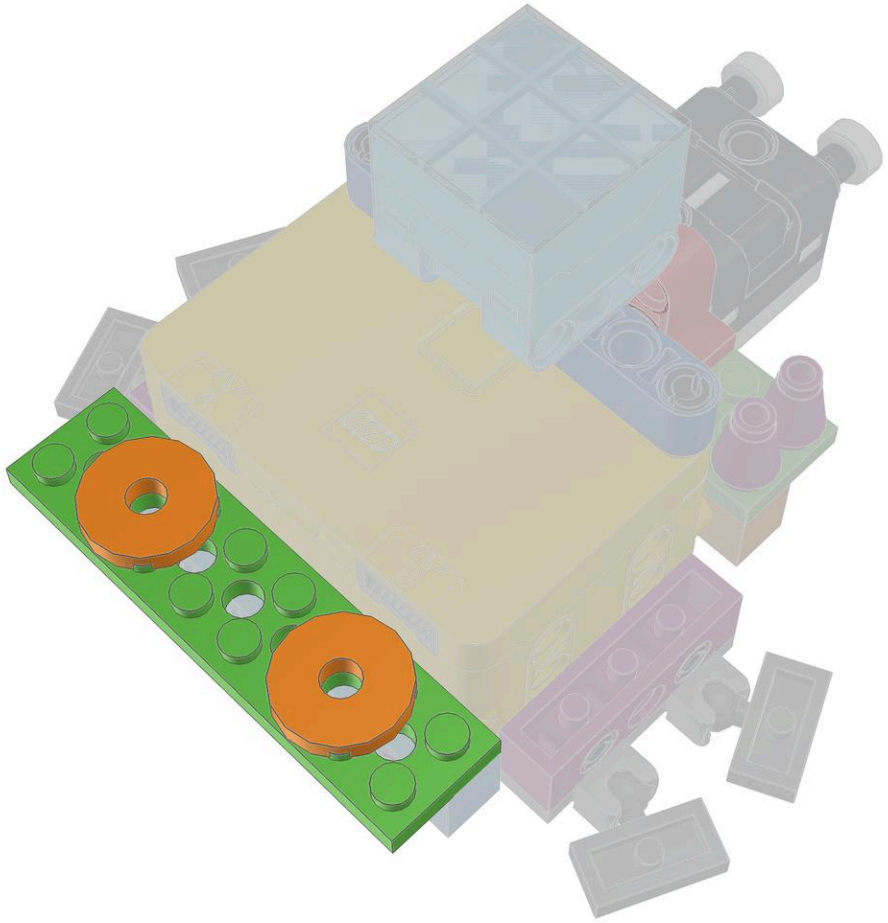
22 tail plate

Essential

ADD

- 1x Bright Green 2x8 plate with holes | kit 45345
- 2x Bright Orange round tile 2x2 with hole | kit 45345

Press an orange circle onto each end of the green plate first, then press the plate onto the bar.



Check: The green plate sits flat on the bar with an orange circle near each end. It does not teeter.

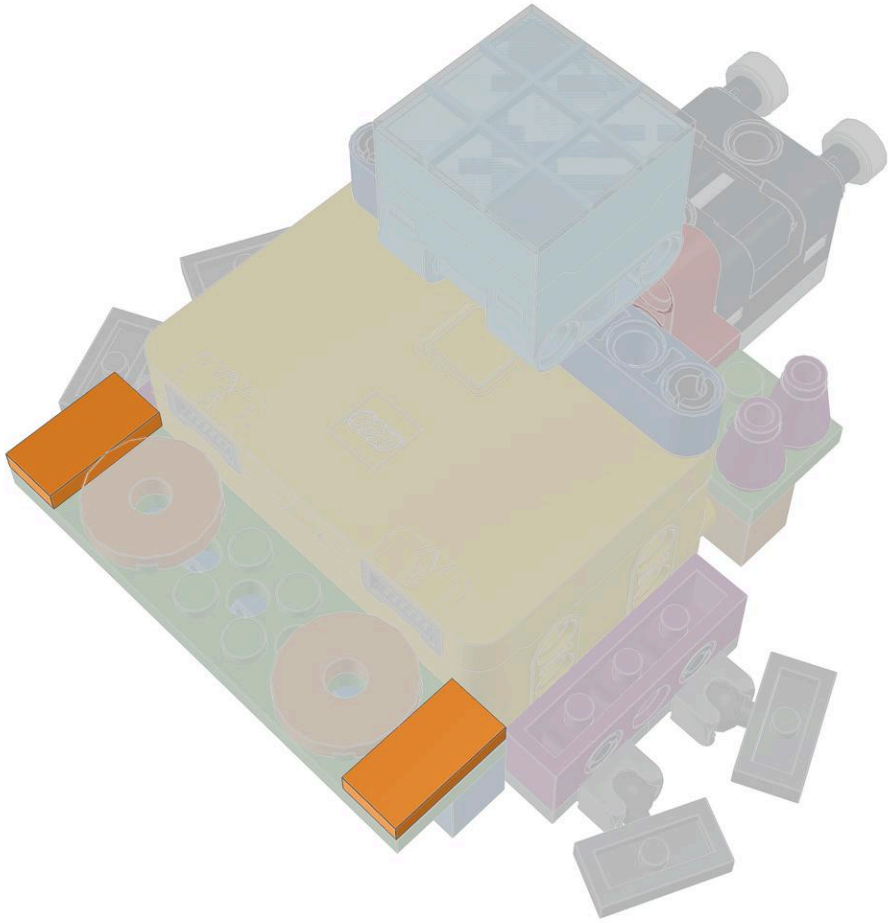
23 tail corners

Essential

ADD

- 2x Bright Orange flat tile 1x2 | kit 45345

Cap the plate's two far corners with the flat orange tiles.



Check: Four orange patches on the tail shelf: two round circles near the hub, two flat rectangles at the far corners.

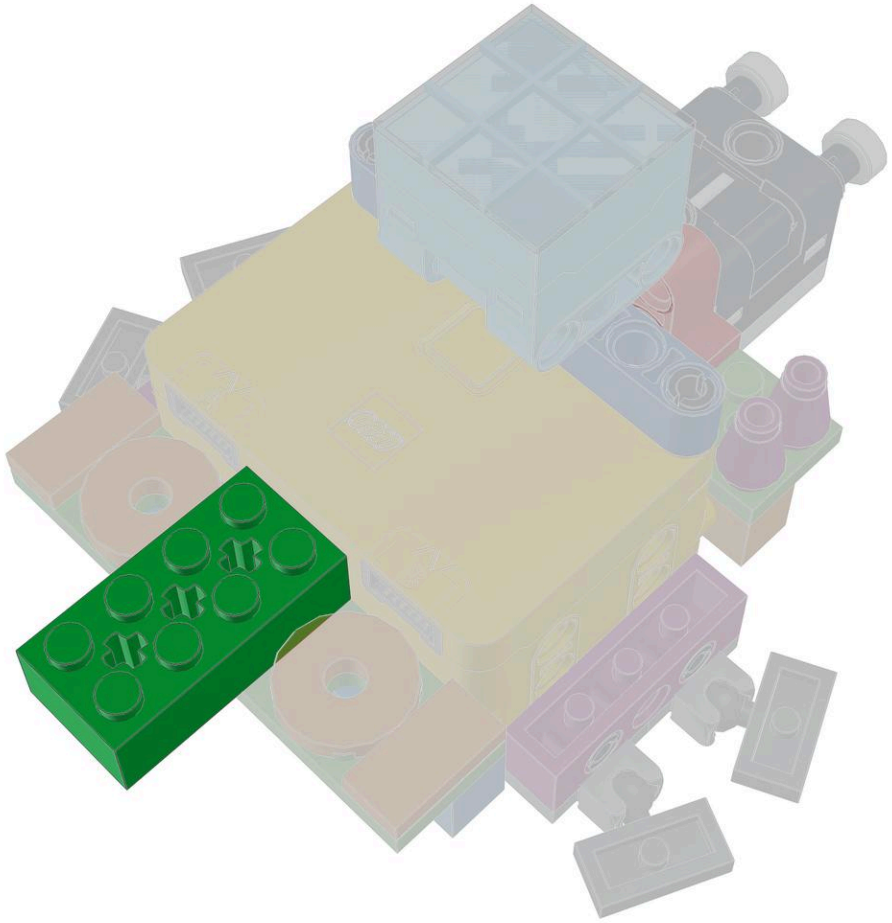
24 tail base

Essential

ADD

- 1x Dark Green 2x4 brick with cross hole | kit 45345

Turn the dark green 2x4 brick the long way and press it onto the shelf.



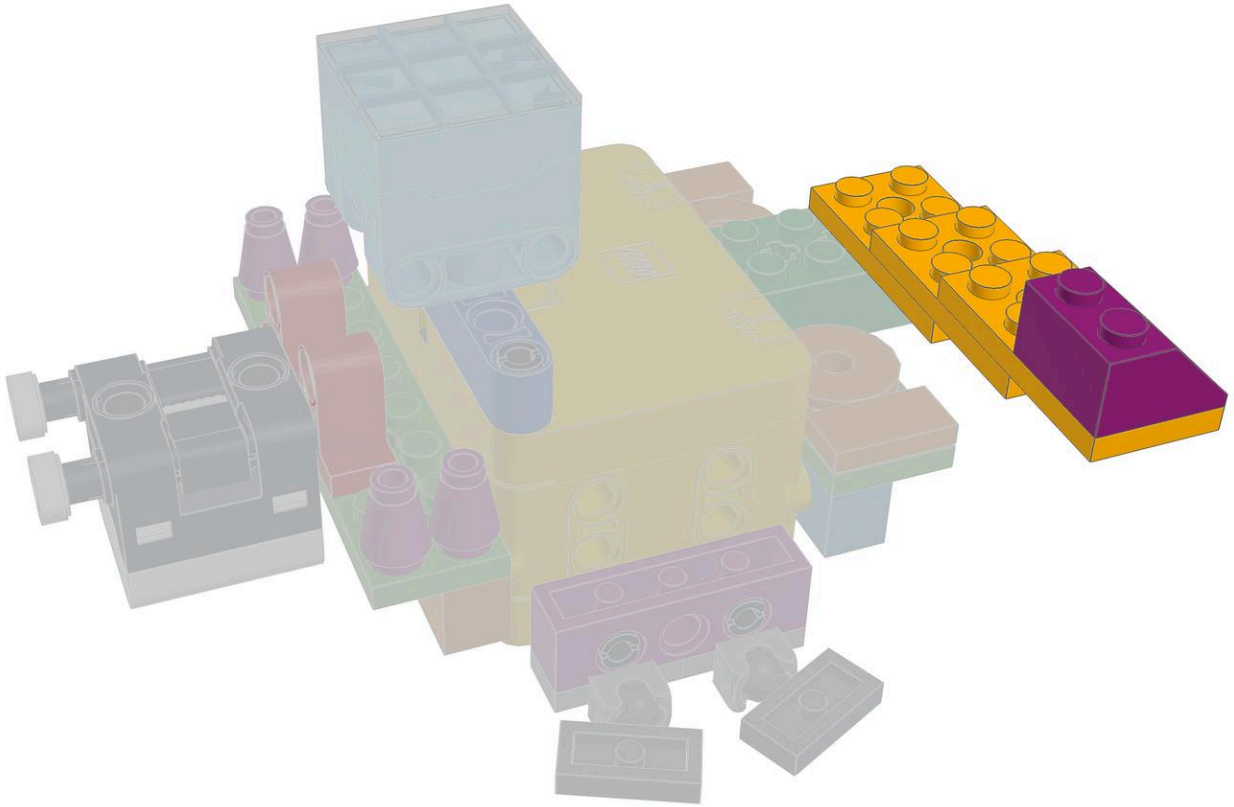
Check: The brick sticks out behind the chameleon and does not rock. This is the thickest part of the tail -- everything after it gets thinner.

25 the curl

ADD

- 3x Flame Yellowish Orange 2x4 plate with holes | kit 45345
- 1x Bright Reddish Violet 2x2 roof tile | kit 45345

Three orange plates turn the tail sideways, each on the last four studs of the one before. Purple slope on the end.



Check: The tail turns a corner and steps up three orange plates, ending in a purple point past the feet. Dark green, then orange, then orange, then orange, then purple.

26 plug in and try it

Essential

ADD

- (none -- use the colour pads Chris brought)

Plug both cables into the back wall. Pose the legs. Slide a coloured pad under its head.

Plug the sensor's cable into port A and the light matrix's cable into port B, both on the hub's back wall. Pose the legs. Slide a coloured pad under its head, right below the lens.

Check: Both cables reach the back wall and plug in easily. The feet stay where you put them. The pad fits under the head without knocking the sensor.

27 code

Essential

ADD

- (none)

Read the pad. Light the back to match -- red means warning!

In Icon Blocks, make four separate stacks -- one yellow "when colour" hat per pad (green, blue, yellow, red), each lighting the matrix on port B the same colour. Do not snap the hats into one row.

Check: Blue pad -> blue back. Yellow pad -> yellow back. Green pad -> green back. Red pad -> bright warning-red back.