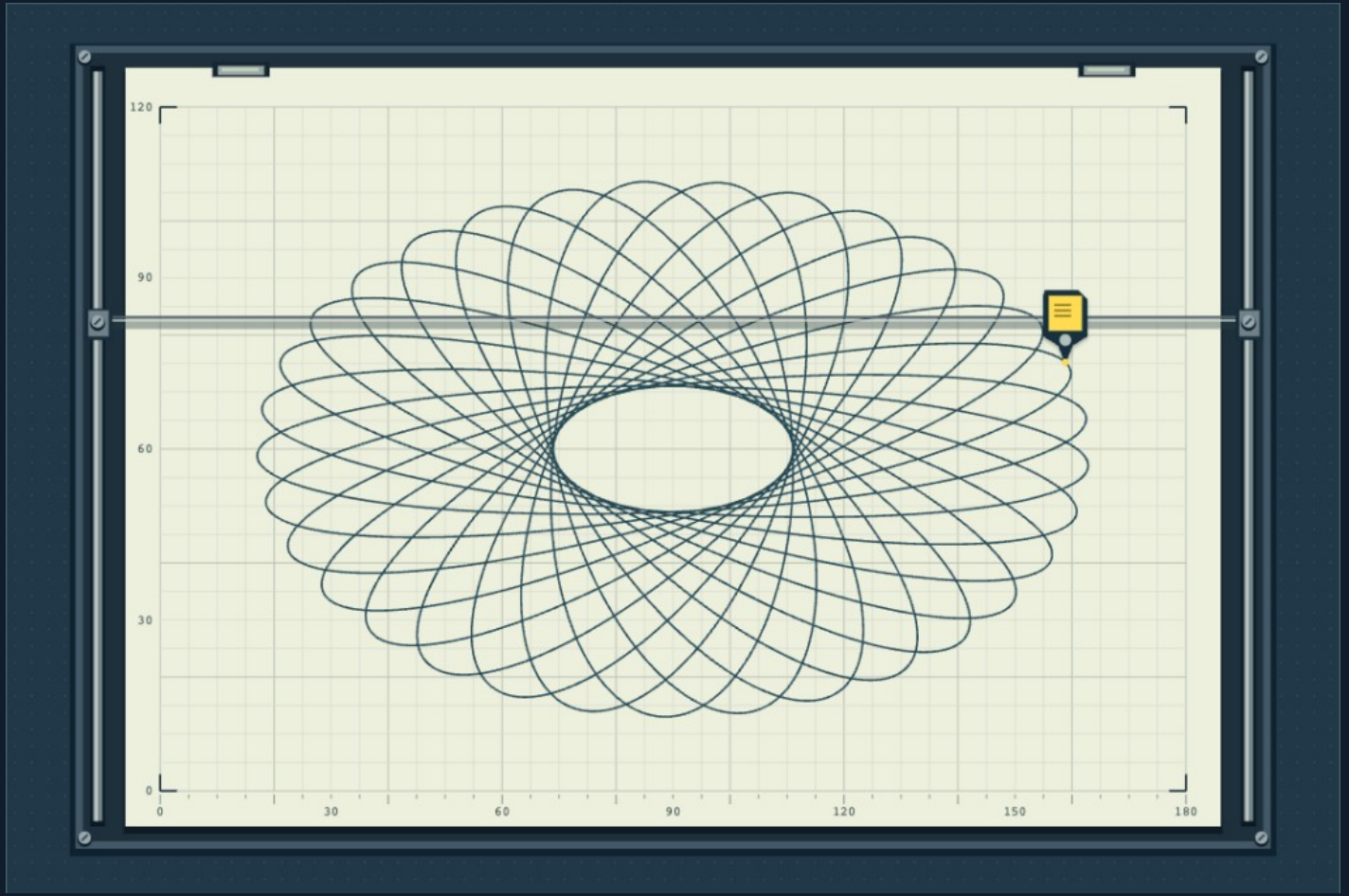
Draviq Robotics

XY plotter bench

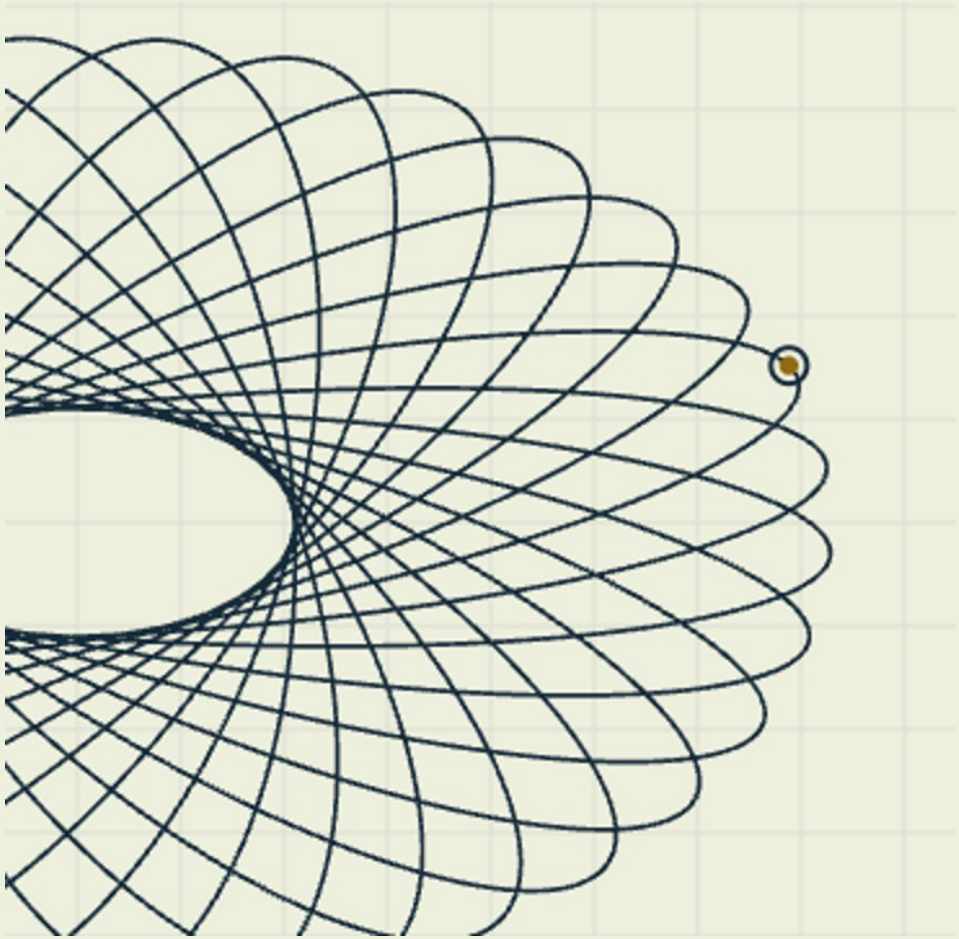
BROWSER DESIGN PROPOSAL

A virtual pen shows how one uninterrupted stroke builds a drawing.



draviqai.com

The order behind a finished drawing



Detail of the Orbit proof

For drawing tutors

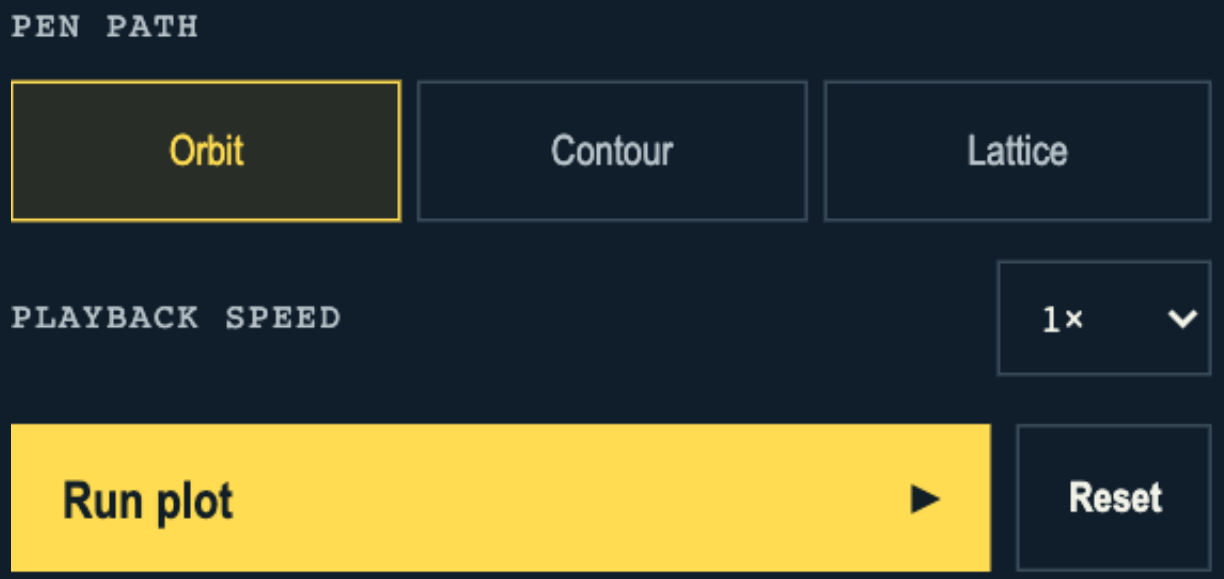
A finished crossing hides which branch came first. Pause the virtual carriage and ask a student to predict the next mark.

For creative coders

A loop and a spiral end differently. Comparing their first and last coordinates helps a coder choose a stroke for a border or an open sketch.

Operating the bench

Choose a path, slow it down, and pause the carriage to inspect a mark.



Pen path

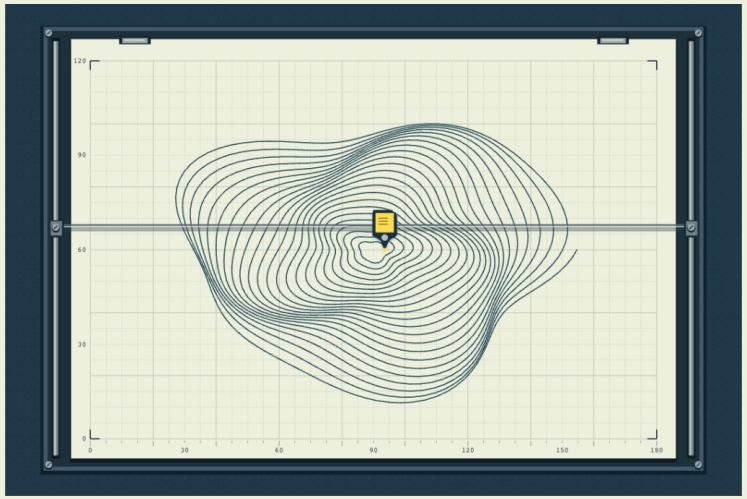
A selection loads its whole guide and returns the pen to its start.

Playback

At 0.5× the carriage takes twice as long to follow the same line. Pause, resume, or reset the bed.

One Contour run

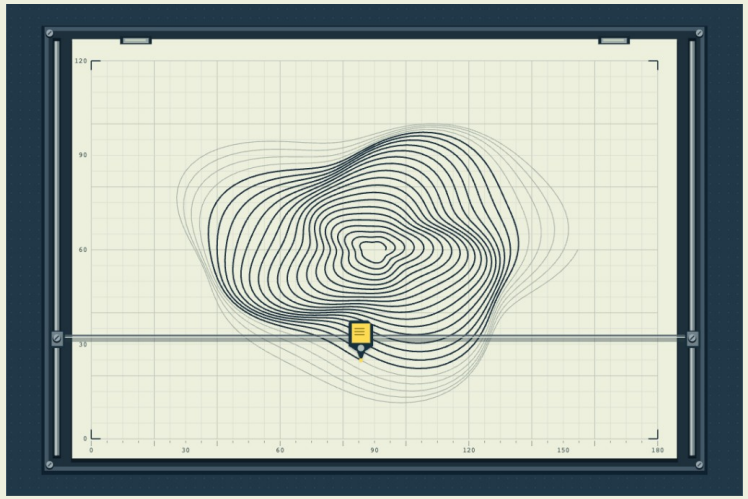
The first and last marks share a horizontal line. The coordinates below are in virtual millimetres.



Preview

`0% | X 93.6, Y 60.0`

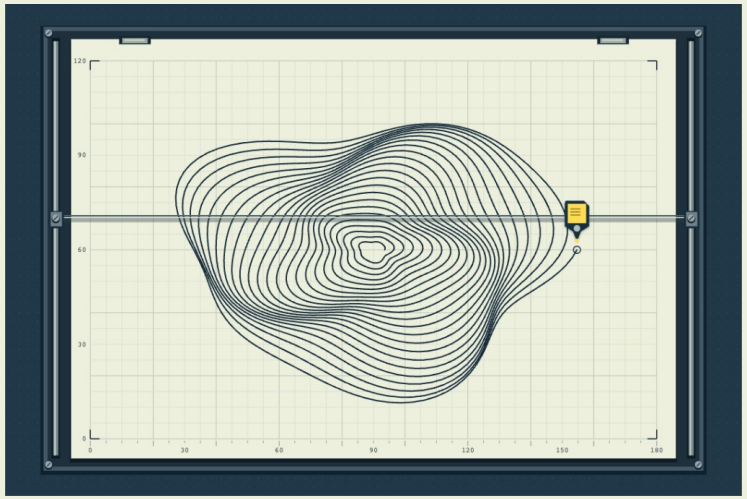
The pen starts near the centre.



Outer turn

`68% | X 85.7, Y 24.9`

Dark ink traces the path already travelled.

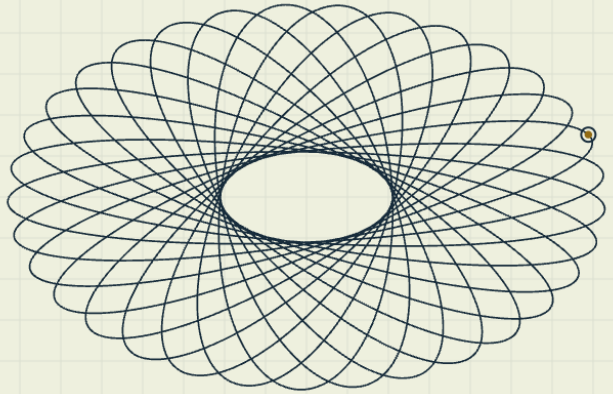


Final mark

`100% | X 154.7, Y 60.0`

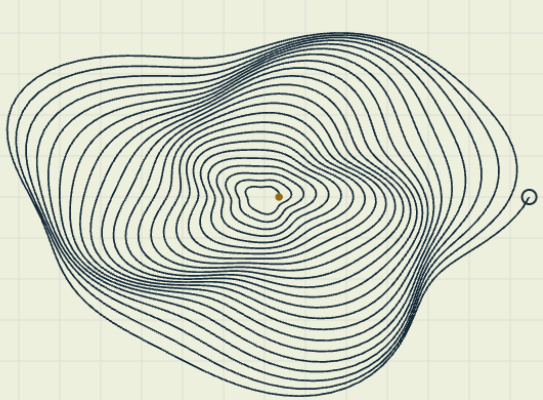
The tip lifts above the endpoint ring.

Three proofs for three drawing decisions



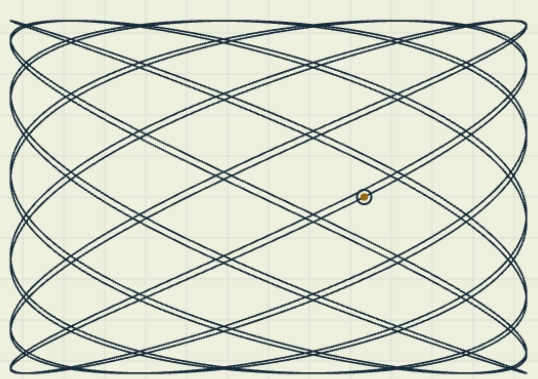
Orbit

Repeat a closed loop. Two rotations make a band of intersecting curves.



Contour

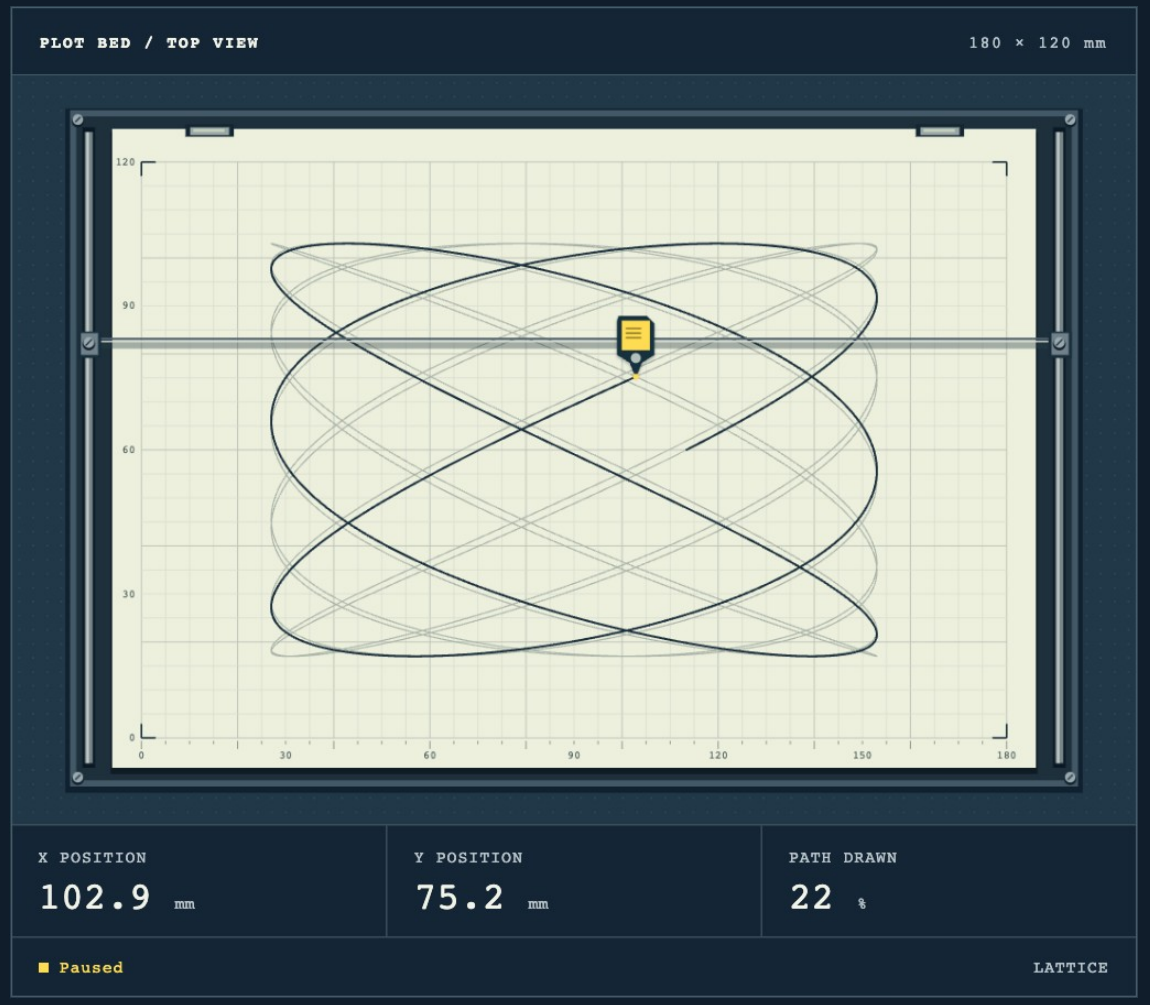
Leave the stroke open. Twenty-three growing turns pull the end away from the centre.



Lattice

Fill a field. Thirteen horizontal and nine vertical oscillations weave one continuous line.

Pause the lattice



22% drawn

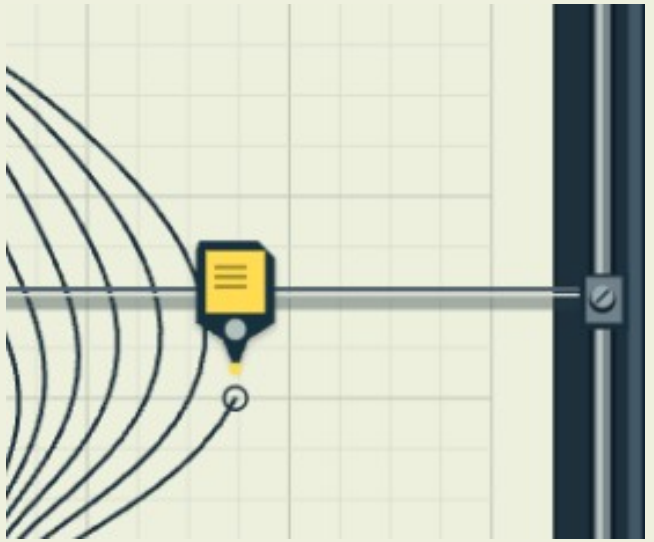
X 102.9 Y 75.2 mm

Select Run Lattice on the bench. The pen pauses at a crossing. Dark ink shows where it came from. Which line will it follow next?

Resume the run to test a prediction.

A proposed classroom trial

Ask a tutor to show a learner the paused Lattice crossing. Have the learner sketch the next branch, resume the run and compare the two lines.



What to record

Record the predicted direction and which visual cue the learner used. Use those observations to adjust the guide and replay instructions.

Scope of the prototype

Offline JavaScript joins 2,601 points on a 2D Canvas. Ink spread, pressure and positioning accuracy require a separate paper trial.