

Automaton Mechanics

Next Generation Science Standards



How does the Automaton project align to the Next Generation Science Standards?

NGSS Project

3-PS2-2: Make observations and/or measurements of an object's motion to provide evidence that a pattern can be used to predict future motion.

Students will observe and compare motions on the automaton, as well as predict how those motions repeat themselves. (Sections 1, 2, 3, 4)

3-5-ETS1-1: Define a simple design problem reflecting a need or a want that includes specified criteria for success and constraints on materials, time, or cost.

Students will define the objective, materials, and design before creating mechanical art for their automaton. (Section 4)

3-5-ETS1-2: Generate and compare multiple possible solutions to a problem based on how well each is likely to meet the criteria and constraints of the problem.

Students will experiment with cams and followers to recreate a given set of motions. (Section 2)