

MEDICAL ROBOTICS

GRADES 8–12

This document lists the Indiana learning standards addressed by Medical Robotics, True Robotics' grades 8-12 robotics curriculum. Standards are grouped by subject and grade level, with codes and wording as published by the Indiana Department of Education.

6

SCIENCE

4

CS

10

TOTAL STANDARDS

SCIENCE

6 STANDARDS

Based on the Indiana state standards

GRADE	CODE	STANDARD
8	MS-LS1-3	Use argument supported by evidence for how the body is a system of interacting subsystems composed of groups of cells.
8	MS-PS2-2	Plan an investigation to provide evidence that the change in an object's motion depends on the sum of the forces on the object and the mass of the object.
8	MS-ETS1-2	Evaluate competing design solutions using a systematic process to determine how well they meet the criteria and constraints of the problem.
8	MS-ETS1-4	Develop a model to generate data for iterative testing and modification of a proposed object, tool, or process such that an optimal design can be achieved.
9–12	HS-LS1-2	Develop and use a model to illustrate the hierarchical organization of interacting systems that provide specific functions within multicellular organisms.
9–12	HS-LS1-3	Plan and conduct an investigation to provide evidence that feedback mechanisms maintain homeostasis.

COMPUTER SCIENCE

4 STANDARDS

Based on the Indiana state standards

GRADE	CODE	STANDARD
8	6-8.DI.4	Create visuals such as flowcharts, diagrams, and pseudocode to represent complex problems as algorithms.
8	6-8.PA.1	Design and iteratively develop programs that combine the following: sequencing, looping (including nested loops), conditionals (including compound conditionals), expressions, variables, functions, and parameters.

GRADE	CODE	STANDARD
8	6-8.CD.1	Design projects that combine hardware and software components to collect and exchange data.
8	6-8.DI.1	Decompose (i.e., break down) problems into smaller, more manageable subsets by applying the algorithmic problem solving steps to make the possible solutions easier to follow, test, and debug.

SOURCES & NOTES

- The official science and computer science standards for Indiana, as published by the Indiana Department of Education.
- Codes and standard wording are reproduced from the official standards documents. Clarification statements, examples and assessment boundaries are omitted.
- Grade shows the grade level at which True Robotics lessons address each standard. A range (for example K-2) marks a standard written for a grade band.
- Standards text remains the property of its publisher and is reproduced here for alignment reference only.
- A lesson-level crosswalk is available on request at info@truerobotics.org.