



» Course Overview

It seems like many elementary to high school robotics courses are focused on simply coding a Lego robot to move its mechanical arm up and down. This course, in contrast, teaches students what a robot is and how it relates to other key technologies such as artificial intelligence and machine learning. Then the course examines 10 applications of robots and how they will change and impact various aspects of our lives and the economy. Will robots simply steal our jobs, or will they be a tool that will create new opportunities and even free humans to use our creativity and curiosity to their full potential? Students will grapple with this and many other questions as they explore this vital, future-focused subject.

» **Course Preview Video:** <https://www.pointfuleducation.com/robotics-preview-video>

» Course Outline by Module

Module 1	What is a Robot?	Module 6	Robots that Play Games
Module 2	Robots in Factories	Module 7	Robots that Drive
Module 3	Robots in Healthcare	Module 8	Robots at School
Module 4	Robots on the Farm	Module 9	Robots with Global Impact
Module 5	Robots at Home	Module 10	Singularity

» Instructional Components

Pointful Education Courses are structured in a consistent, research-based format utilizing multiple pedagogical concepts such as Understanding by Design, Growth Mindset, and Video and Project-based learning. Through the use of these pedagogical concepts, Pointful Education maintains a consistent and engaging course structure that supports student-centered learning.

Course Structure



Instruction
50%



Projects
7%



Reflections
23%



Concept Checks
4%



Exams
8%



Written Assignments
7%