ROBOTHINK

Build, Code & Play with AI Integrated Robots

Curriculum Catalogue

ROBOTICS | CODING | AI

Pre-K through 6th Grade

Crescent Learning LLC · RoboThink Houston

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Approved Katy ISD After-School Program Provider · 2026-2027

TWO PROGRAMS. ONE JOURNEY.

Two Programs. One Journey.

ROBOTHINK JUNIOR

AGES 3-6 · PRE-K & K

45-60 minutes
per class

Big, bright cells
made for little hands

Shapes & balance
Level 1

Gears & motors
Level 2

Math & science
in every single build

111 builds across 6 levels

ROBOTHINK

Build, Code & Play with AI Integrated Robots

AGES 6-13 · GRADES 1-6

60-90 minutes
per class

Robotics · Coding · AI
equal parts

5-tier skill ladder
cells to wireless

Blocks to Python
on real laptops

Real AI tools
AI Thinklab

600+ builds & lessons

RoboThink Jr is designed for ages 3-6. On school campuses, we offer it for Pre-K and Kindergarten students (ages 4-6).

HOW CHILDREN PROGRESS

The Learning Ladder

Every child starts with the basics and climbs, build by build - the whole library is sequenced easiest to hardest, so students always work at the edge of their ability.

RoboThink Jr · Level 1
Cells only - shapes, structures & balance

RoboThink Jr · Level 2
First gears & motors - things that move

Tier 1 · Cells
Towers, claws, catapults

Tier 2 · Gears + Motor
Gear trains, torque, powered motion

Tier 3 · Mainboard + Remote
Students control their robot

Tier 4 · Sensors
Robots that sense and react

Tier 5 · Wireless + Servo
App-controlled precision robotics

Coding Platforms
RoKids □ RoComi □ RoCode - blocks through Python

AI Thinklab
Build with real AI - face, hand & object detection

700+	9	100%	TEKS	1:5
BUILDS & LESSONS	LEVELS	SCIENCE-TAGGED	& NGSS	TEACHER RATIO

REAL SCIENCE, BUILD BY BUILD

Every Build Teaches a Concept

BUILD	WHERE	THE SCIENCE
Hexagon	RoboThink Jr - L1	2-D shapes & geometry
Tallest Tower	RoboThink Jr - L1	Stable structures & balance
Gear Ratio Mini Fan	RoboThink Jr - L2	Gears trade speed for torque
Catapult	15-Minute Builds	Elastic potential energy
Joey's Elevator	Robotics - Tier 3	Pulleys & lifting mechanisms
Centrifuge	Robotics - Tier 3	Centripetal & rotational force
Orrery	Robotics - Tier 3	Orbital motion of the planets
Tower Crane	Robotics - Tier 3	Crane lifting & leverage
Telegraph	Robotics - Tier 4	Electrical signaling - IR sensors
Curiosity Rover	Expedition Mars	Wireless control - Mars rover

Every build carries a science tag like these

A SAMPLE - 10 OF 700+

Aligned to TEKS (Texas Essential Knowledge and Skills) and NGSS

Concepts map to the school science classroom - then come alive in their hands.

PROGRAM AREA 1 OF 3

Robotics

Proprietary patented kit - designed & built in-house. Not LEGO.

5-Tier Skill Ladder

- 1 · Cells
- 2 · Gears + Motor
- 3 · Mainboard
- 4 · Sensors
- 5 · Wireless

550 builds - easiest to hardest

Real Engineering, Real Science

- Torque
- Circuits
- Sensors
- Leverage

a named concept in every build

Small Classes

1:5

TEACHER : STUDENTS

every child builds, every class

KIDS BUILD INSIDE THEMED ADVENTURES

550 kit builds · 1 teacher per 5 students · TEKS & NGSS aligned

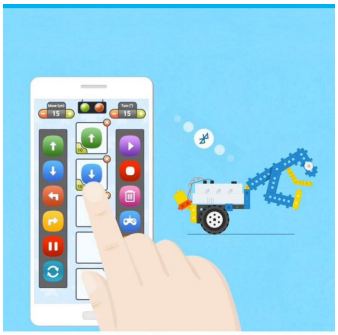
PROGRAM AREA 2 OF 3

Coding

Kids code the robots they build - on tablets & laptops we provide

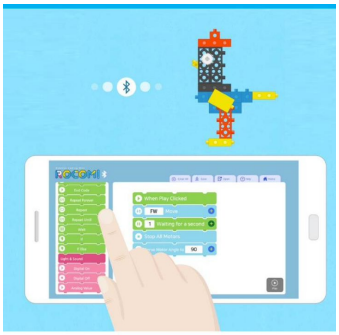
Ages 5-7

Tap-to-code: sequencing & loops



Ages 7+

Block coding: if / else + sensors



Ages 9+

Blocks AND real Python

ROCODE EXPLORERS + Video Game Design & Python Explorers - 71 more on-screen lessons

Tablets and laptops provided by RoboThink Houston - included

PROGRAM AREA 3 OF 3

AI Thinklab

AI ThinkLab
Powered by ROCODE

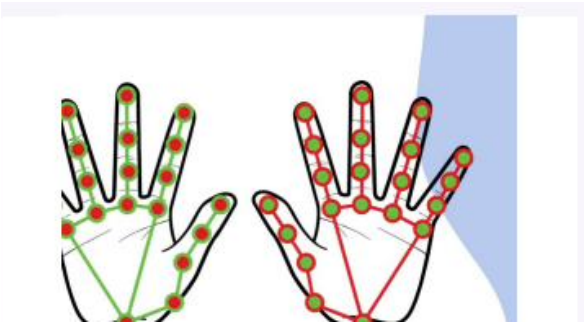
Kids build WITH real AI - four camera tools inside RoCode

Human Detection

Tracks up to 4 people live

Face Detection

Maps eyes, nose & expressions



Hand Detection

21 points per hand - gestures

Object Detection

Recognizes 80+ real objects

AI blocks are just more coding blocks to play with

23 AI lessons across 5 levels - each one tells kids exactly which blocks to use

LEARNING YOU CAN SEE

What Parents Get - Every Class

1. SNAP & PRINT

Every child photographed with their build - printed in ~90 seconds

2. GOES HOME FRAMED

Keepsake frame with the build's name on it - the fridge fills up

3. THE LEARNING NOTE

What they built + why, after every class - plus progress reports each term

RoboThink Houston - today 4:12 PM

"Ava built the Gear Ratio Mini Fan today! She learned how gears trade speed for turning force (torque). Ask her which gear spins fastest!"

Parents are always in the loop - and we always hear their Feedback

They see it, hold it, and can reply any time. Photo sharing runs on signed parent consent.

Always aware · Always in touch

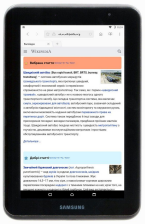
Feedback welcome every week

WHAT WE BRING

Everything Included

RoboThink Class Kit - Full Set

RoboThink Jr Kit



Tablets & laptops - ours, not yours

Every coding & AI lesson runs on devices we bring and maintain - student tablets for the younger platforms, laptops for RoCode & Python.

Included in every program. Nothing for families to supply.

- Proprietary kits
- Devices included
- Background-checked staff
- All materials
- Weekly photo + note
- TEKS & NGSS · 700+ builds

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THIS PROGRAM IS NOT SPONSORED OR ENDORSED BY
THE KATY INDEPENDENT SCHOOL DISTRICT.

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