DeKalb County
Board of Education
Every student counts, every moment matters.

Patrick M. Cripps
Director of Schools

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November 18, 2026

To Whom It May Concern:

The DeKalb County Purchasing Committee will accept bids for the DeKalb County School System until **12:00 p.m., Wednesday, December 16, 2026**, in the office of the County Mayor, at the DeKalb County Courthouse, Public Square, Smithville, Tennessee, 37166. Bids may be mailed or delivered in person and should be in a sealed envelope --- clearly marked as **"Maximize Education – Infento Kit Bid".**

The Purchasing Committee will accept bids as per specifications or approved equivalent.

The DeKalb County Purchasing Committee reserves the right to reject any or all bids.

Sincerely,

Patrick Cripps
Director of Schools

The DeKalb County School System desires to purchase the following or approved equivalent.

Warranty information to be submitted with bid.

maximize
EDUCATION

infento

Infento Pro Kit for Semi-Autonomous Electric Vehicles — Bid Specification

System Overview

The Engineering and Mobility Design Training System (Infento Pro Kit 2.0) shall have unique hands-on engineering capabilities, which are enhanced by its modularity and its reusable, full-scale construction system. The system shall allow students to select and assemble structural, mechanical, and electrical components to build rideable vehicles, then disassemble and rebuild them into new designs.

The system shall be designed for grades 6–12 and shall support approximately 8 students working at one time per kit. One kit shall build a minimum of 76 distinct guided rides: 28 electric vehicles (EVs) and 48 non-motorized rides. Selected non-motorized rides shall be buildable two at a time from a single kit ("2X" builds). The system shall utilize durable, reusable construction components designed for repeated assembly, disassembly, and modification in an educational environment. Components shall be suitable for ongoing classroom use and multiple instructional projects.

The system shall be divided into four levels, each level further divided into specific topics that deal with engineering design, mechanical systems, and electric mobility. The Foundations level shall provide students with complete basic training in safety, parts identification, measurement, and assembly. The Non-Motorized Vehicles level shall introduce structures, levers, gearing, and human-powered motion. The Electric Vehicles level shall introduce motors, batteries, drive trains, and steering. The Design Challenges level shall introduce open-ended engineering design without step-by-step instructions.

The kit shall contain approximately 1,117 reusable parts, including anodized aluminum profiles, axles, wheels, connectors, and metric fasteners (M6 and M8), plus one electric motor and one rechargeable battery pack. Rides shall be full size and rideable by students. EVs shall have a capped top speed of approximately 5–10 mph. The battery shall recharge in approximately 2 hours and provide approximately 1–2 hours of riding.

All parts shall be stored in labeled gray trays with movable compartments. Each tray shall include an organizing sheet showing every part and its quantity, so students can locate parts during a build and verify inventory after disassembly. A 1:1 scale fastener sheet and two measuring gauges shall be included for bolt identification. Rolling dollies shall be included for moving the kit between rooms.

All build instructions shall be provided in digital, step-by-step format viewable on a phone, tablet, or computer. Each manual shall be divided into lettered sections (A, B, C, D) so that student pairs can build separate sub-assemblies and integrate them at the end, mirroring the engineering design process used in industry.

Topics Covered

The system shall cover the following topics with hands-on exercises:

Foundations

- Shop Safety and Kit Management
  - Safety Briefing: Tools, Profiles, and Riding Rules
  - Personal Protective Equipment (Gloves, Eye Protection, Helmets)
  - Kit Organization and Inventory Control
- Parts Identification and Measurement
  - Metric Fasteners (M6 vs. M8; Bolt Lengths)
  - Using the 1:1 Fastener Sheet and Measuring Gauges
  - Measuring with a Metric Tape Measure (mm/cm)
  - Nylock (Locking) Fasteners
- Assembly Fundamentals
  - Reading Digital Build Instructions
  - Axle and Wheel Practice Assembly
  - Proper Torque and Fastener Checks
  - Disassembly and Returning Parts to Inventory

Other areas:

- Mechanical Engineering principles
- Electrical engineering fundamentals.
- Electric motor applications.
- Engineering design and problem solving.
- Mechanical advantage and simple machines.
- Structural design and stability.
- Gear and drive systems.
- Steering and braking systems.
- Applied physics and force.
- Measurement and dimensional planning.
- Collaboration and teamwork.
- Critical thinking and creativity.

Non-Motorized Vehicles

- Structures and Frames
  - Aluminum Profile Construction
  - Load, Balance, and Center of Gravity
- Human-Powered Motion
  - Levers and Lever Arms
  - Wheels, Axles, and Bearings
  - Steering Geometry
- Guided Non-Motorized Builds (48 rides)
  - Flow Motion
  - Cruiser
  - Fun Board
  - Two-at-a-Time (2X) Team Builds

- Testing and Adjustment
    - Adjusting Ride Geometry for Rider Size
    - Collecting Test Data (Speed, Rider Mass, Distance)

Electric Vehicles

- Electric Drive Systems
    - DC Electric Motor Operation
    - Battery Pack Charging and Safe Handling
    - Throttle and Speed Control
- Drive Trains
    - Gears, Gear Ratios, and Power Transfer
    - Braking Systems
- Guided EV Builds (28 rides)
    - Two-Wheel EVs (e.g. Mini Bike)
    - Three- and Four-Wheel EVs (e.g. Go-Kart)
    - Sectioned Team Builds and Final Integration
- EV Testing and Safety
    - Pre-Ride Inspection
    - Speed, Range, and Battery Performance

Design Challenges

- Engineering Design Process (7 Steps)
    - Formulate the Problem
    - Brainstorm and Select Parts
    - Design a Prototype
    - Make It
    - Test and Improve
    - Present to the Class
    - Deepen and Broaden Knowledge
- Open-Ended Design Challenges (20 challenges)
    - Assistive and Prosthetic Devices
    - Fitness and Exercise Equipment
    - Custom Vehicle Modifications
    - 3D-Printed Add-On Components

Standards Alignment

- NGSS Engineering Design (MS-ETS1, HS-ETS1)
- SHAPE America Physical Education Standards 1–5
- Career Connections: Automotive, EV Technology, Clean Energy

Equipment

The training system shall contain the following equipment:

INFENTO PRO KIT 2.0 (BASE SYSTEM)

QTY	DESCRIPTION

8	Pro Kits 2.0 version
32	Shipping Boxes, labeled 1/4 through 4/4 delivered via an LTL pallet
80	Gray Storage Trays with Movable Compartments, numbered 1–10
8	Wheel Set (Tray 1)
8	Aluminum Profile Set (Trays 2–3)
8	Axle Set (Tray 4)
16	Connectors set (Trey 5 and 6)
8	Steering set (Trey 7)
8	Driving set (Trey 8)
8	Seats/Brakes set (Trey 9)
8	Epulse set (Trey 10)
8	Electric Motor
8	Rechargeable Battery Pack

8	Battery Charger
8	Metric Fastener Set (M6 and M8; approx. 15 bags), including Nylock Fasteners
80	Tray Organizing Sheets with Part Quantities
8	1:1 Scale Fastener Identification Sheet
16	Fastener Measuring Gauges
8	Assembly Tool Set
16	Set of Rolling Dollies
1	Digital Build Instructions: 28 EVs and 48 Non-Motorized Rides
1	Design Challenge Guide: 20 Open-Ended Challenges
1	Curriculum Mapping Guide (NGSS and SHAPE America)
1	5-Week Curriculum and Pedagogy Implementation Guide
1	Online Onboarding Presentation and 30-Minute Unboxing Video
3	Infento Online Teacher Course Licenses (self-paced, approx. 3 hours)

3	Semi-autonomous sensor packages and parts
12	Riders robotics licenses for semi-autonomous functionality lessons
3	Semi-autonomous Teacher curriculum licenses (self-paced, approx. 5 hours)

Teacher Training and Advanced Curriculum

Infento Online Teacher Course. The district shall receive access to the Infento Online Teacher Course, a self-paced professional development course of approximately 3 hours. The course shall train teachers to implement and manage the system in their classrooms, including kit rollout, organization, build sequencing, safety, student roles, assessment, and design challenges. The course shall also provide cross-curricular lessons connecting the system to EV history, clean energy and sustainability, and automotive and EV careers, along with the curriculum mapping guide and 5-week implementation guide. Teachers shall be permitted to use course videos within their own classroom lessons.

Infento + Riders Semi-Autonomous Curriculum Guide. The district shall receive access to the Infento + Riders Semi-Autonomous Curriculum Guide, which enables students to make their electric vehicles intelligent by integrating coding and sensors onto the vehicles they build. Students shall apply the programming skills gained in the Riders Robotics electronics and Arduino (C++) courses to wire, program, and test sensors on a full-size Infento EV. The guide shall include circuit design and simulation, Arduino and code setup lessons, step-by-step integration instructions, and troubleshooting. This curriculum is directly connected with the Riders lessons.

Support and Service Requirements

The vendor shall replace any part that is missing on delivery at no charge to the district, upon one written request to manufacturer support listing the kit, build, and order number. Replacement parts and spare parts kits shall be available for purchase for the life of the product and the product will be covered for a 2 year long manufacturer's warranty.

The vendor shall provide live virtual onboarding and professional development delivered by a U.S.-based training team, covering unboxing, kit organization, build sequencing, group management, safety, and design challenges. Online teacher course access shall be provided as described under Teacher Training and Advanced Curriculum.

All curriculum materials, including build instructions, design challenges, curriculum mapping guide, and implementation guide, shall be included with the kit at no additional cost.

If you have any questions about this invitation to bid, please contact the DeKalb County Board of Education, at (615)597-4084. Should any terms or conditions on the attached specifications differ from the Invitation to Bid, the terms and conditions of the Invitation to Bid shall govern the process.

- Items may be awarded to the lowest bid(s) or best overall bid, and DeKalb County School System reserves the right to award this bid on quality, price and availability of product specified, whichever is in the best interest of DeKalb County Schools.

- The use of the name of a manufacturer or any special brand, model or make in describing an item or the use of detailed descriptive specifications pertinent thereto, does not restrict bidders to that manufacturer or specific article or such detailed descriptive specifications; this means or method being used simply to indicate the character, or quality of the article desired; but the article on which bids are submitted must be of such character, quality and design as will serve the purpose for which it is to be used equally as well as that specified; must be the equal of the article described and equally suitable to the needs of the DeKalb County School System. If bidding on other than the make, model, or brand specified or such detailed descriptive specifications, the manufacturer's name and catalogue reference, together with specifications therefore must be given or other information given (CLEARLY STATED ON THE BID SHEET IN EVERY INSTANCE) to enable the Purchasing Agent to determine its suitability, or otherwise. DeKalb County Schools reserves the right, through the Purchasing Agent, to be the sole judge in such determinations. WHEN NO REFERENCE IS MADE BY THE BIDDER TO THE MAKE OR GRADE PROPOSED TO BE FURNISHED IT IS UNDERSTOOD THAT THE SPECIFIC ARTICLE NAMED IN THE BID SHEET WILL BE FURNISHED.

- All bids are ultimately subject to funding.

- Bids are to be valid for a minimum of 90 days.

- The language of this Invitation to Bid shall be binding unless mutually amended by DeKalb County School System and bidder. Issuance of the purchase order will be the award notice. The terms and conditions of this Invitation to Bid and detailed purchase order shall constitute entire agreement.

- Back orders are discouraged. Bills for partial shipments are not acceptable. No payment will be made until order is complete.

- All invoices must have an approved DeKalb County School System purchase order number. We require one itemized invoice per purchase order, which shall be presented after we receive 100% of the items on the original purchase order.

- Invoice must be reflective of original bid; DeKalb County Schools will not be responsible for added expenses. By submission of bid, vendor certified that all

items are equal to or better than the referenced items and agrees to all terms and conditions stated herein.

- The bidder shall abide by and comply with the true intent of the specifications and not take advantage of any unintentional error or omission, but shall fully address the full intent and meaning of each aspect of the specifications.

- DeKalb County School System is a tax-exempt organization.

- It is the bidder's responsibility to comply with all local, state and federal laws, regulations, codes, licensing, and other requirements. The bidder must be prepared to substantiate compliance upon request by the Board's representative.

- The desired equipment should reasonably meet or exceed the specifications of the models included in the detailed specifications, which have been provided as a reference. Any item substituted must be an approved equivalent.

- The successful bidder must provide full arrangements for delivery, installation, clean up and removal of all debris from project site. All shipping and delivery cost shall be paid by vendor and included in bid price. All items shall be delivered, uncrated, assembled and installed by the vendor, unless otherwise noted.

- Bids will be awarded and purchase orders issued.

- If you have any questions pertaining to the materials listed please contact Brad Leach, CTE Director at 615-597-4094, ext. 214 or by email bradleach@dekalbschools.net

BID FORM

SUBMIT BID FORM TO: Patrick Ray, County Mayor
DeKalb County Purchasing Committee
DeKalb County Courthouse
1 Public Square, Room 204
Smithville, TN 37166

ITEMS: Items as contained in the DeKalb County Schools SPECIFICATIONS for DeKalb County Infento Kit Stations

The bidder acknowledges by his signature that:

1. He has received, read, and understands the specifications and his bid is made in accordance therewith.
2. He has received the following addenda:
   Addendum No. _____ Dated_____, 2026.
3. He is in agreement to:
   A. If awarded the bid, comply with all requirements of the specifications.

A. Show amount in both words and figures for the total cost of the **Infento Pro Kit *System***, price to include shipping and handling with lift gate truck delivery to DeKalb County High School.

_____dollars

$ _____

Name of Company _____

Address _____

Signature and Title _____

Date _____ Phone Number _____

Federal ID Number _____

Bid must be signed by a person or persons authorized to bind the bidder. Failure to complete the Bid Form may be cause for rejection of bid. Bid opening will be 12:00 Noon on Wednesday, December 16, 2026.