#### **Program Summary:**

Design a complex that contributes to helping Alabama become a leader in robotics technology and training.

#### **Program Statement:**

Phase 1 is the anchor to an industrial park designed to grab global attention from the robotics industry including manufacturers, scientists, and developers. The Governor wanted the Robotics Technology Park to be unique to not only the country but the world. The three building complex aims to attract companies on the forefront of technology and rival facilities more commonly found in countries like Japan, Sweden, and Germany. The goal is to help elevate Alabama's status as a leader in robotics technology and training.

The state-of-the-art complex is located on US Highway 31 across from the Calhoun Community College campus. Students will benefit from training in an institute which houses robotic and automated systems from the industry's leading robotics developers, and guidance from instructors from around the world.

Phase 1 has a glass, steel, brick, and zinc panel facade and features energy efficient construction designed to some of the highest standards set forth by the United States Green Building Council. The building, as well as the entire campus is slated to achieve LEED Gold Certification or higher. Geometries incorporated throughout the design are an architectural interpretation of a robotic aesthetic. During facility tours, visitors will be exposed to the educational processes taking place in the 22,500 square foot high bay, see hands on training in the associated welding labs, and will be introduced to various LEED elements identified throughout the site. The Robotics Training Facility Phase 1 has a unique program that brings the world's leading corporations together to develop tomorrow's workforce and partnerships.

#### T02.01

Building Area: (sf) 68,330

Cost per Square Foot: \$198

Construction Cost \$13.5M

Date of Completion: November 2010



Design concept rendering: view approaching Robotics Phase 1 building.

Robotics are built around the world. To attract the attention of international robotics companies and support Alabama's efforts build Alabama's reputation as a leader in robotics manufacturing and training, AIDT and Governor Riley challenged the design team to provide a bold, modern building design.



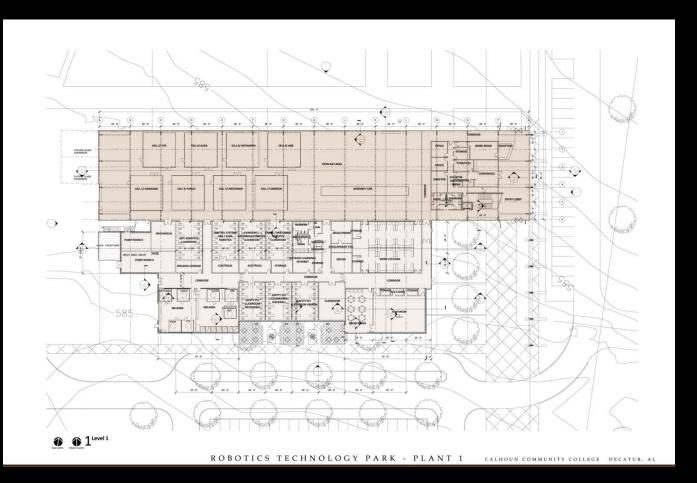
Design concept rendering: pedestrian view approaching main entrance

Geometries reflect the architects interpretation of robotics technology. Repetition, carefully composed acute and obtuse angular forms, layering of glass and steel, all carefully detailed, to highlight aesthetic similarities to design components of robotics technology.



Site concept rendering: birds eye view

The development includes 3 phases, built separately. **Building location and** arrangement stems from a single axis, designed as an acute angle to the adjacent hwy 31. Approaching the buildings from the north, the angle gives perception that buildings are staggered, providing a layering affect. The anchor of the Phase 1 project is farthest forward. Approaching from the south, phase 1 is the dominant view, as the anchor of the site.



Floor Plan

The building consists of a high open-bay, full height glass with northern exposure. Inside and free floating within the high bay is a "box" that houses the administrative and executive facilities. On the ground floor of this 'box' the administrative offices are situated. On the upper floor, executive meeting space is provided. Darkened opaque windows inside the meeting space become clear with the flip of a switch; giving executives controlled views of the robotics training in action. A mezzanine connects the executive level the full length of the highbay facilitating walking tours, without interruption of training activities.

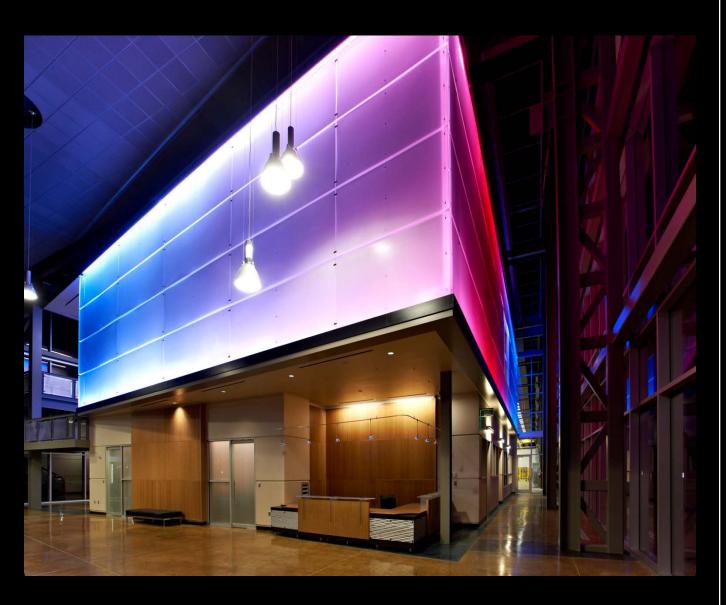
Classrooms, auditoriums and all the functions required to support training are located in the southern, 1-story portion of the building.



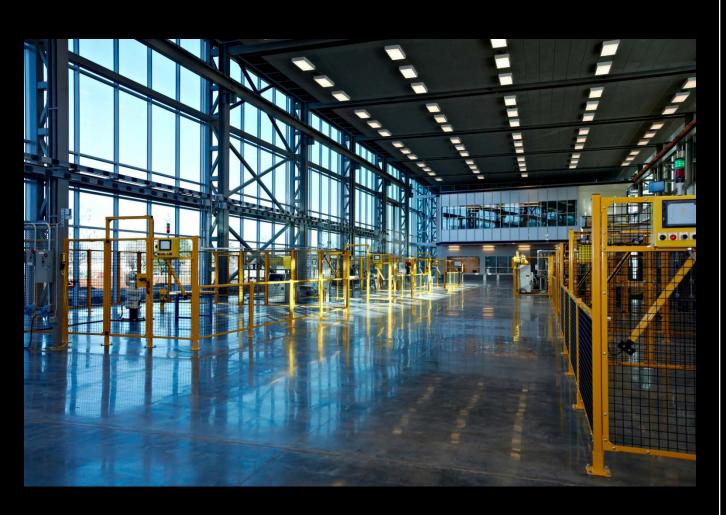
**Exterior Photograph:** Southeast view Each form has its function. The large angled roof, designed to create a strong dominating presence also captures water and diverts it to an underground cistern. The cistern provides irrigation to the site. The canopy, emphasizing repetition and robotic form protects visitors from weather, and captures water in a rock basin aligned with the canopy edge. The water is delivered to the nearby constructed wetland where held and filtered naturally.



In keeping with the design goal to create an iconic building presenting Alabama as a leader - the 'box' inside the high bay area glows with changing colors via highly energy efficient LED lighting system. The form of the facility is faintly lit and visible, drawing attention, and creating awareness signifying to the importance of technology in Alabama's future.

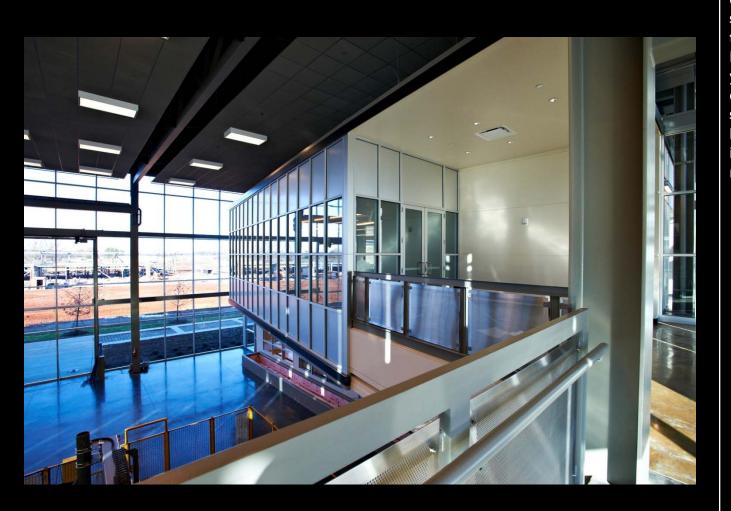


Lobby Area
Interior details speak to the
exterior detailing. repetition
in the illuminated wall
panels aligns with the
proportion and dimension of
the exterior curtain
wall. Walls on the lower floor
of the box are set back,
allowing the illuminated
form to overhang, providing
the 'floating' appearance
from the outside.



High bay robotics traning area

Fundamentally this building is for training Alabamian's in robotics at the highest level. The spacious high bay area contains separated cells [fenced areas] for each robotics vendor to secure their proprietary equipment. Superflat concrete floors, natural daylight with northern exposure, and adjacent connected classroom environments facilitate the best possible atmosphere for training



View from Mezzanine toward executive conference area; switchable glass shown in the 'visible' position.
Beyond the exterior glass you can see phase 2 under construction. Alabama is serious about growing their leadership in the automotive industries. The architecture reflects their mission.

**Project Name:** 

The Robotics Training Facility Phase I

Photographer(s):
All photos by Edward Badham

**Project Location:** 

**Limestone County, AL** 

Owner/Client:

**Alabama Industrial Development and Training Institute (AIDT)** 

Architect(s) of Record:
Goodwyn, Mills and Cawood
2701 1st Avenue South, Suite 100
Birmingham, AL 35233
Jeffrey Brewer, AIA - Principal
Chris Engel, AIA, LEED AP - Director of Architecture
Mark Coyle, AIA Project Architect
Jeff Slaton, Director of Design
Jacquelyn Hart, IIDA, AIA, LEED AP Director of Interiors
Project Team: Jeff Miller, Kyonta Smith, Nathan Varner, Jill Hall, Jeff Little

Landscape Architect: Goodwyn, Mills and Cawood, Huntsville Gerald Clark, Landscape Architect

#### **Consultants:**

Goodwyn, Mills and Cawood, Birmingham – Civil Engineer, Nathan Tomberlin, PE Goodwyn, Mills and Cawood - Environmental Engineer

- Findley Frazer, PE Director of Environmental
- Stuart Blackwell, Biologist
- William H McLemore, PE

Goodwyn, Mills and Cawood, Birmingham – Geotechnical Engineer, Kevin Wales, PE Tucker Jones Engineers Associated, PC – Structural Engineering, Greg Tucker, PE Jackson Renfro & Associates, Inc. – Electrical Engineering Edmonds Engineering, Inc. – Mechanical & Plumbing Engineering

**General Contractor:** 

Gary C. Wyatt, Inc.

#### T02.x

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