The College of Engineering’s new research and teaching facility for its Robotics program is a four-story, state-of-the-art facility. The building is approximately 140,000 gross square feet with high bay labs, dedicated shops, and classrooms and office space. The building also accommodates space for its corporate partner, Ford Motor Company, who has co-located collaborative research activities within the facility. The building has an open plan design concept to provide flexibility while encouraging collaboration between faculty, students, and researchers. Testing labs include a robot walking lab, a flight testing lab, a rehabilitation robotics lab, and labs for electronics and software development.

**Active Occupants**

Open stairwell encourages stair use promoting occupant health and well-being while reducing the electrical demands associated with elevator use.

**Natural Daylight**

Natural daylight shines into the research spaces through the atrium, while daylight controls reduce lighting load.

— Ample glazing with a sunshade system on the south face of the building blocks direct summer sun to reduce heat gain
— Motorized shades at ground level reduce glare and direct sun in the morning

**Views**

Office spaces provide occupants a direct connection to the outdoors with views of the adjacent woodlot.

**Building Orientation**

The long building axis runs east-to-west to provide the greatest exposure to southern sunlight, allowing direct winter sun to provide radiant heat while minimal glazing on the east and west façades avoids direct summer sun.

— Views from south

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**Sustainability Facts**

Ford Motor Company Robotics Building

- **Building Use:** College of Engineering
- **Location:** Ann Arbor, Michigan
- **Size:** 140,000 Square Feet
- **Number of Occupants:** 916 Daily Average

**LEED Version:** 2009

- **LEED Certification Level:** Gold
- **ASHRAE 90.1 Version:** 2007
- **Average Cost Savings Compared to ASHRAE Baseline:** 31%
- **Total Energy Savings:** 596,222 KWh/year
- **Total Gas Savings:** 48,000 Therms/year
- **Water Retake Baseline:** 2012 Michigan Plumbing Code
- **Total Water Savings:** 95%
- **Construction/DEMOLITION WASTE Diverted from Landfill:** 64%
- **Insulation (R-Value)**
  - Wall Assembly - Above Grade: Limestone Panel w/CMU
  - Wall Assembly - Above Grade: Insulated Metal Panel
- **Slab on Grade Floors**
- **Roof Assembly**
- **Glazing - Curtain Wall System**
  - U Value:
  - Solar Heat Gain Coefficient (SHGC):
  - Visible Light Transmittance (VT):
- **Glazing - Skylight**
  - U Value:
  - Solar Heat Gain Coefficient (SHGC):
  - Visible Light Transmittance (VT):

**Design Period:** 03/2015 - 12/2017

**Construction Period:** 03/2018 - 09/2020

**Project Team**

- **Owner:** University of Michigan - College of Engineering
- **Architect:** HED
- **Engineer:** HED
- **Contractor:** Devon Industrial Group (DIG)
- **Commissioning Authority:** U-M AEC
- **Project Management:** U-M AEC

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**Project Location:** North Campus

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**ISSUE DATE:** 05-23-2022