

Republic of the Philippines



Department of Education **REGION XI**

SCHOOLS DIVISION OF DIGOS CITY

OFFICE OF THE SCHOOLS DIVISION SUPERINTENDENT

DIVISION MEMORANDUM CID-2025-769

To

Assistant Schools Division Superintendent

Concerned Public Schools District Supervisors (Secondary)

Concerned Education Program Supervisors

Public and Private School Principals and Teachers (Senior High School)

All Others Concerned

Subject:

PARTICIPATION TO THE REGIONAL SCIENCE, TECHNOLOGY, AND

INNOVATION WEEK (RSTW) 2025

Date

August 26, 2025

Relative to the letter from Dr. Anthony C. Sales, PFT, CESO III, Regional Director of the Department of Science and Technology XI (DOST XI), and in reference to Regional Memorandum CLMD-2025-408 on the Participation in the Regional Science, Technology, and Innovation Week (RSTW) 2025, this Office informs the field of the conduct of the said activity on September 25–27. 2025 at the Abreeza Ayala Malls Activity Center, JP Laurel Avenue, Bajada, Davao City.

This year's RSTW will showcase a wide array of exhibits, interactive demonstrations, and educational activities aimed at promoting greater awareness and appreciation of science, technology, and innovation (STI) among the public. School heads are encouraged to prepare and support interested Senior High School learners, particularly those with potential in robotics and related fields, to take part in this activity.

For inquiries, schools may contact Zyg Rebuelta at 0961-857-0638 info@region11.dost.gov.ph or contact Dr. Ivy F. Solano at 0929-528-5142.

This office further informs the field that teachers and students' participation is on a voluntary basis, subject to the policy on "No disruption of classes" as per DepEd Order No. 9, s. 2005 entitled "Instituting Measures to Increase Engaged Time-On-Task and Ensuring Compliance Therewith." Moreover, this office reiterates the no-collection policy as stated in Section 3 of Republic Act No. 5546, also known as "An Act Prohibiting The Collection Of Contributions for Whatever Project or Purpose from Students and Teachers of Public and Private Schools, Colleges, and Universities (Ganzon Law)," and DepEd Memorandum No. 41, s. 2024 entitled "Reiteration of the 'No Collection Policy' in Schools." Additionally, it is emphasized that no government funds shall be involved in this activity.

Relevant details and other information are found in the enclosures.

The widest dissemination of this Memorandum is earnestly desired. JeoEd Schools Division of Digos City

MELANIE ACIO, PhD, CESO VI Schools Division Superintendent

TIME: 6:4

Enclosed: As star

Address: Roxas Street cor. Lopez Jaena Street, Zone II, Digos City 8002 **Telephone No:** (082)553-8396 | (082)553-8376 | (082)553-9170

(082)553-8375



Republic of the Philippines

Department of Education

DAVAO REGION

21519



June 29, 2025

REGIONAL MEMORANDUM CLMD-2025-408

> PARTICIPATION TO THE REGIONAL SCIENCE, TECHNOLOGY, AND INNOVATION WEEK (RSTW) 2025

To: Schools Division Superintendents

- Herewith is the letter from Anthony C. Sales, Regional Director, Department of Science and Technology (DOST), regarding the Regional Science, Technology, and Innovation Week (RSTW) 2025 on September 25-27, 2025 at Abreeza Ayala Malls Activity Center, Davao City.
- This Office informs that participation of learners shall be subject to a nodisruption-of-classes policy stipulated in DepEd Order No.9, s. 2005 entitled Instituting Measures to Increase Engaged Time-on-Task and Ensuring Compliance Therewith. The activity is also subject to no-collection policy as stated in Section 3 of Republic act No. 5546, An Act Prohibiting the Sale of Tickets and/or the Collection of Contributions for Whatever Projects or Purpose from Students and Teachers of Public and Private Schools, Colleges and Universities.
- All other details of the activity are in the enclosures. 3.

4. Immediate dissemination of this Memorandum is desired.

> ALLAN G. FARNAZO Dispector IV &

IDPARTMENT OF EDUCATION NUM RECORDS SECTION

Encl.: As stated

ROC2/mlib





Address: F. Torres St., Davao City (8000) Telephone Nos.: (082) 291-0051

Email Address: region11@deped.gov.ph

Website: www.depedroxi.ph





DEPARTMENT OF CHARACTON BOX

22 JUL 2025 7M72 116

July 16, 2025

DIR. ALLAN G. FARNAZO, CESO IV Regional Director

Department of Education XI

ATTN: MS. MARILYN B. MADRAZO, EdD.

Chief Education Supervisor Policy, Planning & Research Division

Dear Dir. Farnazo,

The Department of Science and Technology XI (DOST XI) will be conducting the Regional Science, Technology, and Innovation Week (RSTW) 2025 on September 25-27, 2025 at Abreeza Ayala Malls Activity Center. This annual event celebrates the crucial role of Science, Technology, and Innovation (STI) in society.

This year's RSTW will feature a wide array of exhibits, interactive demonstrations, and educational activities designed to promote STI awareness and appreciation among the public. We will also hold competitions specifically for Senior High School students such as the Robotics Challenge in partnership with Ateneo de Davao University.

In line with this, we respectfully request the support of the Department of Education XI through the Issuance of a Memorandum endorsing the participation of invited schools and their students in the RSTW activities.

For your reference, we have attached a concept note with more information and quidelines.

Should you have any questions, please feel free to contact Zyg Rebuelta at 0961-857-0638 or info@region11.dost.gov.ph. We will coordinate closely with your office for this request.

We thank you for your continued support in advancing STI initiatives in Davao, and we look forward to your favorable response.

Very truly yours,

Digitally signed by Sales

DR. ANTHONY C. SALES, PFT, CESO III

Regional Director

DOST XI-ORD Released

Date: July 22, 2025 25-07-1587

School of Engineering and Architecture; Ateneo de Davao University, E. Jacinto St., Davao City



Ignite & Innovate: The DOST Robotics Challenge

Concept Paper

Overview

Event Name:

Date and Time:

Event Venue:

Type of Activity:

Category of the Activity:

Ignite & Innovate: The DOST Robotics Challenge

September 25-27, 2025

Ayala Malls Abreeza, Davao City

Robotics Competition and Interactive S&T Showcase

Academic, Skill-Building, and S&T Promotion

Rationale

The "Ignite & Innovate: The DOST Robotics Challenge" is envisioned as a premier event to spark interest and cultivate talent in Science, Technology, Engineering, and Mathematics (STEM) among the youth of Davao Region. This initiative, proposed in collaboration with the Department of Science and Technology (DOST), aims to provide a dynamic platform for students to apply theoretical knowledge in a practical, engaging, and competitive environment. By tasking participants with designing and building their own robots to perform basic tasks such as earrying objects and navigating obstacles, the event directly supports DOST's mandate to promote scientific and technological innovation and build a competent S&T workforce.

Hosting the event at a public venue like Ayala Malls Abreeza maximizes visibility, allowing the general public to witness the ingenuity of young minds and appreciate the practical applications of robotics. This exposure is critical for inspiring a broader audience, fostering a culture of innovation, and encouraging more students to pursue S&T careers. The event will not only showcase technological skills but also highlight the importance of problem-solving, critical thinking, and teamwork – essential competencies for future innovators and leaders.

School of Engineering and Architecture; Ateneo de Davao University, E. Jacinto St., Davao City



Objectives

- To promote interest and appreciation for Science, Technology, Engineering, and Mathematics (STEM) disciplines, particularly robotics, among students and the general public.
- 2. To provide a hands-on learning experience for participants in designing, building, programming, and operating robots for specific tasks.
- To develop critical thinking, problem-solving, teamwork, and sportsmanship among student participants.
- 4. To showcase the innovative capabilities of students in the Davao Region to a wider audience, including potential industry partners and DOST representatives.
- To strengthen the partnership between academic institutions, government agencies like DOST, and private sector entities like Ayala Malls in promoting S&T development.
- To identify and encourage promising young talents in the field of robotics and engineering.

Success Indicators

- Active participation from at least [e.g., 15-20] teams from various Senior High Schools and/or Colleges in the Davao Region.
- 2. At least 80% of participating teams successfully design, build, and operate a robot capable of attempting the specified tasks.
- Significant public engagement and audience footfall at the Ayala Malls Abreeza event area.
- 4. Positive feedback gathered from at least 75% of participants, spectators, and involved DOST personnel regarding the event's organization, educational value, and impact.
- Successful collaboration between GEARS, Ateneo de Davao University, DOST, and Ayala Malls Abreeza in executing the event.
- Media coverage (local news, social media) highlighting the event and its S&T promotion goals.

School of Engineering and Architecture; Ateneo de Davao University, E. Jacinto St., Davao City



Mechanics

A. General Guidelines

1. Eligibility:

- a. The competition is open to teams of [e.g., Senior High School and/or Junior High School] from educational institutions in the Davao Region.
- b. Each institution may register a maximum of 2 teams.

2. Team Composition:

- a. Each team shall consist of a minimum of 2 students and a maximum of 3 student members.
- b. Each team must have one (1) designated faculty advisor or mentor.

3. Registration:

- a. Teams must register online through the official event portal by [To Be Determined].
- b. The official "Bot Kits & Point System Guide" will be provided to registered

B. Day 1: Bot Design & Assembly Day (University Campus - Ateneo de Davao University)

1. Venue & Time: Ateneo de Davao University, School of Engineering and Architecture, Robotics Laboratory F313. September 20, 2025 | 1:00 PM to 5:00 PM

2. The Elimination Round - Circuit Assembly Challenge

- a. Objective: To test each team's fundamental electronics knowledge, schematic comprehension, and assembly speed. Only the top six (6) teams from this round will advance.
- The Task: All participating teams will be given a schematic diagram for a basic circuit (e.g., a logic gate implementation, a flashing LED circuit, or a simple motor control setup).
- The Kit: Each team will receive an identical, sealed "Elimination Kit" containing a breadboard, jumper wires, resistors, LEDs, integrated circuits (ICs), and a battery pack. No components from the Day 1 robot build may be used.

• Procedure & Qualification:

- On the "go" signal, teams will open their kits and assemble the circuit on the breadboard precisely according to the provided schematic.
- Once a team believes their circuit is complete and functional, they will signal a judge for verification.
- o The judge will inspect the circuit for correctness and functionality.
- The first six (6) teams to successfully build a functional circuit will qualify for the Final Robotics Competition.
- Teams that do not qualify will have their participation conclude but are highly encouraged to stay and watch the final event.

School of Engineering and Architecture; Ateneo de Davao University, E. Jacinto St., Davao City



3. The Modular Robotics Kit System:

To streamline the build process and ensure a level playing field, each registered team will be issued a standardized robotics kit. This new system shifts the focus from budget management to strategic component selection. While each kit contains a core set of components, teams will need to make critical choices for key systems like drivetrain and sensors.

a. Strategic Component Selection (Illustrative - Final options will be provided):

Each team will choose from a set of component options to complete their kit. This choice will define their robot's primary strategy. Teams must select one option from each category on their "Component Selection Form."

- i. Category 1: Drivetrain Package (Choose One)
 - 1. Option A (Speed): 2x High-Speed DC Geared Motors with Wheels
 - 2. Option B (Torque): 2x High-Torque DC Geared Motors with Wheels
- ii. Category 2: Primary Sensor (Choose One)
 - 1. Option A (Distance Sensing): 2x Ultrasonic Sensors (HC-SR04)
 - 2. Option B (Line/Edge Detection): 1x IR Proximity Sensor Array (3-channel)
- iii. Category 3: Utility Actuator (Choose One)
 - Option A (Pivoting Action): 1x Standard 180-Degree Servo Motor
 - 2. Option B (Continuous Action): 1x Continuous Rotation Servo Motor

4. Kit Acquisition & Assembly:

- a. On Day 1, teams will submit their "Component Selection Form."
- b. Organizers will then issue the complete, customized kit to each team.
- c. Teams will design, assemble, and program their robots within the allocated time at the university venue.
- d. No external electronic components or pre-fabricated parts beyond what is provided in the kit are allowed.
- e. Teams are expected to bring their own laptops for programming. Basic tools (screwdrivers, pliers, etc.) will be available, but teams may bring their own hand tools. No power tools that pose a safety risk will be allowed without prior approval and supervision.

5. Technical Support & Mentorship:

a. GEARS members and faculty mentors will be available for technical consultation and guidance but will not directly build or program for the teams.

School of Engineering and Architecture; Ateneo de Davao University, E. Jacinto St., Davao City



6. End of Day 1:

- a. Robots must be in a demonstrable (though perhaps not fully polished) state.
- b. A brief "Tech Check" may be conducted to ensure compliance with the point system and basic safety.
- c. Robots will be [e.g., impounded by the organizers overnight OR teams are responsible for securely transporting them to Day 2 venue, with a declaration that no major modifications using unbudgeted parts will occur].

C. Day 2: Challenge Gauntlet Day (Ayala Malls Abreeza)

 Venue & Time: Designated event area at Ayala Malls Abreeza. September 26-27, 2025

2. Pre-Competition Check-in & Final Inspection:

- a. Teams check in their robots.
 - b. A final technical inspection will be conducted to ensure:
 - i. Robot dimensions (if specified, e.g., must fit within a 30cm x 30cm starting box).
 - ii. Safety features (no sharp edges, secure wiring).
 - iii. Robots failing inspection must make necessary modifications (if time permits and within budget) or may be disqualified.
 - c. A brief practice/calibration period on the official track may be allowed if time permits.

3. The Challenge Arena & Tasks:

- A designated arena will be set up with a clearly marked start zone, finish zone, and areas for specific tasks.
- The competition will consist of a sequence of tasks that must be completed in a single run.
- c. Example Tasks (to be finalized and detailed with diagrams):

i. Task 1: Object Pick-Up & Transport:

- 1. Robot starts in the designated zone.
- 2. Must autonomously navigate to a specified object (e.g., a 5cm cube).
- 3. Securely pick up the object.
- 4. Transport the object along a defined path (e.g., marked line, simple turns).

ii. Task 2: Obstacle Avoidance Course:

1. While carrying the object (or after delivering it, to be specified), the robot must navigate a section with static obstacles (e.g., cones, small barriers).

iii. Task 3: Target Zone Delivery / Goal Achievement:

- 1. After the obstacle course, the robot must deliver the carried object to a designated target zone (e.g., a 10cm x 10cm marked square).
- 2. OR, if no object carry is involved in the final segment, navigate to and stop within a final goal zone.

School of Engineering and Architecture; Ateneo de Davao University, E. Jacinto St., Davao City



3. The robot must cross a final finish line to stop the timer.

4. Competition Rounds:

- a. Elimination/Qualification Round(s): All teams get [e.g., 2-3] attempts to complete all tasks. The [e.g., top 8-10] teams with the fastest valid completion times advance.
- b. Final Round(s): Advancing teams compete for the championship. Time from previous rounds may or may not be carried over (to be specified).

5. Performance Rules:

- a. Once a robot starts a run, no physical intervention by team members is allowed unless explicitly permitted by judges for a reset (which may incur a penalty or void the run).
- b. A maximum time limit (e.g., 3-5 minutes) will be set for each attempt. Robots failing to complete all tasks within this limit will receive a DNF (Did Not Finish) for that attempt.
- c. Specific penalties will be defined for:
 - i. Touching/moving obstacles unintentionally.
 - ii. Dropping the object outside the delivery zone.
 - iii. Going out of bounds of the defined track.
 - iv. Requiring a manual reset.

D. Scoring & Judging

- 1. Primary Scoring Metric: The primary factor for ranking will be the elapsed time taken by the robot to successfully complete all specified tasks in sequence, from crossing the start line to crossing the finish line.
- Penalties: Time penalties will be added to the raw elapsed time for infractions (e.g., +5 seconds for hitting an obstacle, +10 seconds for dropping an object prematurely).
 A detailed penalty list will be provided.
- 3. Successful Completion: A run is considered successful if all tasks are completed according to the rules, even if penalties are incurred.
- 4. Ranking: Teams will be ranked based on their fastest valid corrected time (Raw Time + Total Penalties).

5. Judging Panel:

- a. A panel of judges (comprising faculty and DOST representatives) will oversee the competition.
- b. Judges will be responsible for scoring the overall quality and design of the robot.
- c. The decision of the judging panel is final.

E. Safety & Fair Play

- 1. Safety is paramount. All robots must be designed and operated safely.
- 2. Any strategy or robot design deemed intentionally hazardous or disruptive to other teams will be disallowed.
- 3. All team members are expected to exhibit good sportsmanship.

GLOBAL ENGINEERING ATENEO ROBOTICS SOCIETY School of Engineering and Architecture; Ateneo de Davao University, E. Jacinto St., Davao City





4. Organizers reserve the right to modify rules if necessary for safety or fairness, with adequate notification to all teams.

Working Committee

| lames | | Position | Task |
|-------|--|---|--|
| 1. | Alfred Miguel Tancontian | Overall Event Chairperson (GEARS) | Oversee all aspects of event planning and execution. |
| 2. | Moises Clint Balbuena John Cholen Makigod | Technical Lead / Competition Design | Develop competition mechanics, track design, and technical judging. |
| 4. | John Joric Laguitao | Logistics and Venue Coordinator | Liaise with Ayala Malls, manage setup, equipment, and on-site logistics. |
| 5. | Paul Reynan Demadara | Promotions & School Linison | Manage event promotion, invite schools, handle registrations. |
| 6. | Will Fredric Oville | Secretary / Documentation | Manage communications, document proceedings, and prepare reports. |
| 7. | Hamir Ali | Finance Officer | (To manage budget details once approved) |
| 8. | [Name of GEARS Officer] | DOST Liaison & Partnerships | Coordinate with DOST representatives and other potential partners. |
| 9. | Enzo Panaligan | Technical Working Group / Volunteers | Assist with various tasks during planning and on even |

GLOBAL ENGINEERING ATENEO ROBOTICS SOCIETY School of Engineering and Architecture; Ateneo de Davao University, E. Jacinto Sc., Davao City



| | days |
|--|-------|
| | days. |
| | |

Budget Proposal

| Category | Item Description | Estimated Price |
|-----------------------------------|---|--|
| | Standardized Robot Component Kits (per team) | Php 3,000 per team x 6 teams = Php 18,000 |
| | Consumables for Day 1 Build (wires, solder, batteries, fasteners) | Php 1,500 |
| I. Participants & Team Support | Team Registration Kits/Welcome Packs | % ADDU |
| | Participant Meals & Refreshments (Day 1 - University) | % DOST |
| | Participant Meals & Refreshments (Day 2 - Ayala Malls) | % DOST |
| | Champion Team Prize (Cash and/or In-Kind) | % DOST |
| | 1st Runner-Up Team Prize (Cash and/or In-Kind) | % DOST |
| II. Prizes & Awards | 2nd Runner-Up Team Prize (Cash and/or In-Kind) | % DOST |
| | Special Awards (e.g., Most Innovative Design, Best Team Spirit) | % DOST |
| | Trophies and Medals | % DOST |
| | Certificates of | % DOST |

GLOBAL ENGINEERING ATENEO ROBOTICS SOCIETY School of Engineering and Architecture; Ateneo de Davao University, E. Jacin to St., Davao City



| | | Participation/Recognition | |
|------|------------------------------|--|-----------|
| III. | Venue & Logistics | Competition Arena Construction Materials (Race Track) | Php 3,500 |
| | | Power Supply and Extension Cords | % ADDU |
| | | Event Signage, Banners, and Tarpaulins | % DOST |
| IV. | Event Operations & Personnel | Honoraria for Judges / Technical Experts | % DOST |
| | | Meals & Refreshments for Working Committee, Volunteers, & Judges | % DOST |
| | | Event T-shirts/Uniforms for Organizers & Volunteers | % DOST |
| V. | Marketing and Promotion | Printing of Posters, Flyers, Brochures | % ADDU |
| VI. | Administrative & Contingency | Office Supplies (paper, ink, miscellaneous for printing) | % ADDU |
| | | Transportation/Logistics Costs (for moving materials, equipment) | % ADDU |
| | | Contingency Fund (e.g., 5-10% of total direct costs) | % ADDU |

GLOBAL ENGINEERING ATENEO ROBOTICS SOCIETY School of Engineering and Architecture; Ateneo de Davao University, E. Jacinto St., Davao City



Signatories

Prepared by:

Sgd: John Cholen Makigod President GEARS SY 2024-2025

Noted by:

Sgd: Engr. Ottoman Montani Jr. BS Robotics Engineering Department Chair



