Republic of the Philippines
Department of Education
REGION XI
SCHOOLS DIVISION OF PANABO CITY

Office of the Schools Division Superintendent

DIVISION MEMORANDUM
CID-2025-0445

To : Assistant Schools Division Superintendent
Chief, Curriculum Implementation Division (CID)
Education Program Supervisors
Public Schools District Supervisors
Public Secondary School Heads

Subject : **PARTICIPATION TO THE REGIONAL SCIENCE, TECHNOLOGY, AND INNOVATION WEEK (RSTW) 2025**

Date : July 31, 2025

Attached is the Regional Memorandum No. CLMD-2025-408 relative to the letter-invitation from Anthony C. Sales, Regional Director of the Department of Science and Technology (DOST) regarding the conduct of the Regional Science, Technology, and Innovation Week (RSTW) 2025 on September 25-27, 2025 at Abreeza Ayala Mall Activity Center, Davao City.

This Office informs that participation in the abovementioned exhibit shall be purely voluntary and will not hamper instructional time in compliance with the provisions of DepEd Order No. 012, s. 2025, titled Multi-year Implementing Guidelines on the School Calendar and Activities and of DO 9, s. 2005 titled Instituting Measures to Increase Engaged Time-on-Task and Ensuring Compliance Therewith and the policy on off-campus activities stated in DO 66, s. 2017. Further, this is also subject to the no-collection policy stated in Section 3 of RA No. 5546 also known as An Act Prohibiting the Sale of Tickets and/or the Collection of Contributions for Whatever Project or Purpose from Students and Teachers of Public and Private Schools, Colleges and Universities (Ganzon Law), issued in DO 19, s. 2008, and reiterated in DepEd Memorandum No. 041, s. 2024.

Attached is the detailed description of the proposed activities.

For your information and guidance.

JINKY B. FIRMAN PhD., CESO VI
Schools Division Superintendent

RELEASED
AUG 0 1 2025
RECORDS SECTION SDO PANABO CITY

Attached: As stated.
CID/jey/ybm

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Website: www.depedpanabocity.com

RECORDS

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Republic of the Philippines
Department of Education
DAVAO REGION

June 29, 2025

REGIONAL MEMORANDUM
CLMD-2025-408

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

To: Schools Division Superintendents

1. 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.

2. This Office informs that participation of learners shall be subject to a no-disruption-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.

3. All other details of the activity are in the enclosures.

4. Immediate dissemination of this Memorandum is desired.

ALLAN G. FARNAZO
Director IV

DEPARTMENT OF EDUCATION - XIM
RECORDS SECTION
RELEASED
By:
Date: June 30, 2025 Time:
2|519

Encl.: As stated

ROC2/mlib

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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 guidelines.

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 Anthony Cinco

DR. ANTHONY C. SALES, PFT, CESO III
Regional Director

GLOBAL ENGINEERING ATENEO
ROBOTICS SOCIETY
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:	Ignite & Innovate: The DOST Robotics Challenge
Date and Time:	September 25-27, 2025
Event Venue:	Ayala Malls Abreeza, Davao City
Type of Activity:	Robotics Competition and Interactive S&T Showcase
Category of the Activity:	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 carrying 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.

Objectives

1. 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.
3. 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.
5. To strengthen the partnership between academic institutions, government agencies like DOST, and private sector entities like Ayala Malls in promoting S&T development.
6. To identify and encourage promising young talents in the field of robotics and engineering.

Success Indicators

1. 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.
3. 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.
5. Successful collaboration between GEARS, Ateneo de Davao University, DOST, and Ayala Malls Abreeza in executing the event.
6. Media coverage (local news, social media) highlighting the event and its S&T promotion goals.

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 teams.

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.
  - 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.

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)**
         1. **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.

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)

1. **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 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. A designated arena will be set up with a clearly marked start zone, finish zone, and areas for specific tasks.
    b. 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.

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.
2. **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.

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

Working Committee

Names	Position	Task
1. Alfred Miguel Tancontian	**Overall Event Chairperson (GEARS)**	Oversee all aspects of event planning and execution.
2. Moises Clint Balbuena 3. 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 Liaison**	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 event

		days.

Budget Proposal

Category	Item Description	Estimated Price
I. Participants & Team Support	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**
	Team Registration Kits/Welcome Packs	% ADDU
	Participant Meals & Refreshments (Day 1 - University)	% DOST
	Participant Meals & Refreshments (Day 2 - Ayala Malls)	% DOST
II. Prizes & Awards	Champion Team Prize (Cash and/or In-Kind)	% DOST
	1st Runner-Up Team Prize (Cash and/or In-Kind)	% DOST
	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

	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**

Signatories

Prepared by:

Sgd: **John Cholen Makigod**
President
GEARS SY 2024-2025

Noted by:

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