



Republic of the Philippines
Department of Education
Region III
SCHOOLS DIVISION OF BULACAN

August 18, 2025

DIVISION MEMORANDUM

No. 407, s. 2025

**ROBOTICS IN SCIENCE LEARNING: INTEGRATING ROBOTICS IN SCIENCE
EDUCATION THROUGH CODING AND PROGRAMMING**

To: Assistant Schools Division Superintendent
Division Chiefs
All Public Elementary School Heads
All Public Secondary School Heads
All Others Concerned

1. The Schools Division of Bulacan announces the conduct of the division training entitled, Robotics in Science Learning: Integrating Robotics in Science Education Through Coding and Programming with the theme – *“Innovate, Integrate, Inspire: Robotics for Future-Ready Science Teaching”*. This activity is scheduled on September 3-5, 2025 at Galilee Wonderland Resort, Gen. Alejo Santos Hi-way, San Pedro, Bustos, Bulacan.
2. DepEd recognizes robotics as a tool for developing 21st-century skills and promoting SPSTEM education across key stages. Robotics is seen to make learning more engaging, enhance critical thinking, and prepare students for future careers. In alignment, this in-service training aims to:
 - a. enhance SPSTEM teachers' understanding of robotics concepts and their relevance to Science education;
 - b. equip educators with innovative pedagogical strategies for integrating robotics into Science curricula;
 - c. develop teachers' capacity to design, implement, and assess robotics-enhanced science learning activities; and,
 - d. create session guides that integrate the use of robotics kits in SPSTEM Science subjects.
3. Participants in this training are required to bring their received QuidBots bundle, Arduino Uno package, and Lego Spike Prime set as well as laptop and pocket wi-fi. This also applies to schools with procured robotics kits and/or received thru donation and partnerships.
4. Expenses to be incurred in the conduct of this activity shall be charged against INSET fund while transportation and other incidental expenses to be incurred by the participants in attendance of the said training shall be charged to school's Maintenance and Other Operating Expenses (MOOE) subject to the usual accounting and auditing rules and regulations.
5. This Memorandum serves as the Travel Authority for all the participants. Attached herewith are the list of participants and their respective schools.
6. Wide and immediate dissemination on this memorandum is earnestly desired.


CECILIA E. VALDERAMA, PhD.

Assistant Schools Division Superintendent
Officer-in-Charge
Office of the Schools Division Superintendent

Encls.: As stated



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Enclosure No. 1 of DM No. 407, s. 2025

A. TRAINING MATRIX

Date/Time	Activity	Person-in-Charge
Day 1 (3 September 2025): Building QuidBots/Arduino/Lego Robots		
7:30 – 8:00 AM	Arrival/Registration/	TWG
8:00 – 8:30 AM	Opening Program	Proponent/TWG
8:30 – 10:00 AM	Session 1 I. Introduction to Robotics a. Basic Definition b. Input-Process-Output c. Application of Robotics in SPSTEM	Learning Facilitators and Speakers
10:00 – 10:30 AM	Health Break	
10:30 – 12:15 NN	Session 2 II. I-P-O Model in Robotics a. Sensors b. Micro-Controller c. Actuators	Learning Facilitators and Speakers
12:15 – 1:00 PM	Lunch Break	
1:00 – 2:45 PM	Session 3 III. Basic Electronics a. Circuits b. Electronic Components in Robotics	Learning Facilitators and Speakers
2:45 – 3:15 PM	Health Break	
3:15 – 5:00 PM	Session 4: c. Common Tools Used in Electronics d. Hands-on Activity on Basic Electronics	Learning Facilitators and Speakers
Day 2 (4 September 2025): Programming QuidBots/Arduino/Lego Robots		
7:30 – 8:00 AM	Arrival/Registration/	TWG
8:00 – 8:30 AM	Management of Learning (MOL)	TWG/Participation
8:30 – 10:00 AM	Session 5 IV. Basic Coding a. Algorithm b. Creation of Algorithm (Flow Chart)	Learning Facilitators and Speakers
10:00 – 10:30 AM	Health Break	
10:30 – 12:15 PM	Session 6 a. Introduction to Arduino Uno/Lego b. Input-Process-Output model using Arduino Uno/Lego	Learning Facilitators and Speakers
12:15 – 1:00 PM	Lunch Break	
1:00 – 2:30 PM	Session 7: Hands-On Activity on Arduino Uno/Lego	Learning Facilitators and Speakers
2:30 – 3:00 PM	Health Break	
3:00 – 5:00	Session 8: Workshop/Crafting of Activity Sheets and Session Guide using Arduino Uno/Lego	Learning Facilitators and Speakers



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Day 3 (5 September 2025): Manipulating QuidBots/Arduino/Lego Robots		
7:30 – 8:00 AM	Arrival/Registration/	TWG
8:00 – 8:30 AM	Management of Learning (MOL)	TWG/Participants
8:30 – 10:00 AM	Presentation of Outputs	Learning Facilitators and Speakers
10:00 – 10:30 AM	Health Break	
10:30 – 12:15 PM	Critiquing/Feedback	Learning Facilitators and Speakers
12:15 – 1:00 PM	Lunch Break	
1:00 – 2:30 PM	Presentation of Outputs	Learning Facilitators and Speakers
2:30 – 3:00 PM	Health Break	
3:00 – 5:00 PM	Critiquing/Feedback Closing Program and Awarding of Certificates	Learning Facilitators and Speakers

B. RESOURCE SPEAKERS/FACILITATORS AND WORK COMMITTEE

Proponent/Chairperson	Marinella T. Pengson, PhD DEPS - Science
Resource Speakers	
A	Nica Marie B. Magisa, PhD Head Teacher III, Parada NHS
B	Engr. Jasper D. Alberto Instructor, Dr. Yanga's Colleges, Inc.
C	Conrad A. Populi Teacher III, Bunsuran NHS
D	Jaehadd Lou Untalan Teacher III, Bajet-Castillo High School
E	Phoebe Grace D. Biol Teacher III, Prenza National HS
Technical Working Group	
A	Maricel M. Sosa, MAED Head Teacher III, Maronquillo National HS
B	Espy S. Balbuena Master Teacher I, AFG Bernardino Memorial Trade School
C	Roy Ivan M. Reyes, MAED Teacher III, Virginia Ramirez-Cruz National High School
D	Ian L. Bustamante Teacher III, Parada National High School
E	Jayson B. Eugelio Master Teacher I, San Miguel National HS
F	Mervin G. Lucas Head Teacher III, Sta. Maria National HS
H	2 SDO Nurses



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Enclosure No. 2 of DM No. 407, s. 2025 List of Participants

A. List of QuidBots Bundle/Arduino Uno Package Recipients

1. Special Science Elementary Schools – 1 participant/school

School	District
1. Gen. Gregorio del Pilar Integrated School	Bulakan
2. Bambang Elementary School	Bulakan
3. Balatong Elementary School	Pulilan
4. Pulilan Central School	Pulilan
5. Sto. Cristo Elementary School	Pulilan
6. Segundo Esguerra Sr. Memorial ES	Pulilan
7. Inaon Integrated School	Pulilan
8. F. Mendoza Memorial Elem. School	Calumpit North
9. Paombong Central School	Paombong
10. Hagonoy East Central School	Hagonoy East
11. Hangga Elementary School	Hagonoy East
12. Hagonoy West Central School	Hagonoy West
13. Balagtas Central School	Balagtas
14. Plaridel Central School	Plaridel
15. Guiguinto Central School	Guiguinto
16. Timoteo Policarpio Memorial ES	Norzagaray East
17. San Miguel Elementary School	San Miguel South
18. Tartaro Elementary School	San Miguel Central
19. San Miguel North Central Sch.	San Miguel North
20. Francisco F. Illescas E/S	Angat
21. Timoteo Policarpio Memorial ES	Norzagaray East
22. Norzagaray Elementary School	Norzagaray West
23. Malipampang Elementary School	San Ildefonso South
24. Pinaod Central School	San Ildefonso South
25. San Ildefonso Elementary School	San Ildefonso North
26. Anyatam Elementary School	San Ildefonso North
27. San Rafael Central School	San Rafael East
28. Maguinao Elementary School	San Rafael West
29. Parada Elementary School	Sta. Maria East
30. San Vicente Elementary School	Sta. Maria East
31. Miguel M. Cruz Memorial School	Sta. Maria Central
32. Sta. Maria Elementary School	Sta. Maria Central
33. Cay Pombo Elementary School	Sta. Maria West
34. Prenza Elementary School	Marilao North
35. Abangan Norte Elementary School	Marilao South

2. Regular Elementary Schools – 1 participant/school

School	District
1. Teodoso R. Manuel Elementary School	Angat
2. Sta. Ines Elementary School	Bulakan
3. San Nicolas Elementary School	Hagonoy West



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4. San Pablo Elementary School	Hagonoy East
5. Sto. Rosario Elementary School	Paombong
6. Bunlo Elementary School	Bocaue
7. Pinambaran Elementary School	San Miguel North
8. Sta. Rita Elementary School	San Miguel South
9. Salacot Elementary School	San Miguel Central
10. Bubulong Malaki Elementary School	San Ildefonso North
11. Upig Elementary School	San Ildefonso South
12. Bayabas Elementary School	DRT
13. Sampaloc Elementary School	San Rafael East
14. Ipo Elementary School	Norzagaray East
15. North Hills Village Elementary School	Norzagaray West
16. Cornelia M. De Jesus Memorial CS	Sta. Maria West
17. Loma De Gato Elementary School	Marilao North
18. Binuangan Elementary School	Obando
19. Calizon Elementary School	Calumpit South

3. Science Technology Engineering Program – 1 participant/school

School	District
1. Aguinaldo Santos National High School	Bustos
2. Alexis G. Santos National High School	Bustos
3. Assemblywoman Felicitas G. Bernardino MTS	Marilao South
4. Bajet Castillo High School	Pulilan
5. Balagtas National Agricultural HS	Balagtas
6. Bunsuran National High School	Pandi South
7. Calumpit National High School	Calumpit South
8. Carlos F. Gonzales High School	San Rafael West
9. Dr. Felipe National High School	Plaridel
10. Fortunato F. Halili National Agricultural School	Sta. Maria West
11. Norzagaray National High School	Norzagaray West
12. Obando National High School	Obando
13. Parada National High School	Sta. Maria East
14. Prenza National High School	Marilao North
15. Pres. Diosdado Macapagal Memorial HS	Angat
16. Pulong Buhangin National High School	Sta. Maria West
17. San Ildefonso National High School	San Ildefonso North
18. San Miguel National High School	San Miguel South
19. San Roque National High School	Paombong

B. List of Non-recipient Schools

4. Regular Junior High School – 1 participant/school

Name of Secondary School	District
1. Akle High School	San Ildefonso South
2. Banga High School	Plaridel
3. Batia High School	Bocaue
4. Binagbag National High School	Angat
5. Cambaog National High School	Bustos



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6. Frances National High School	Calumpit North
7. Gat Francisco Balagtas High School	Balagtas
8. Gen. Gregorio Del Pilar MHS	Bulakan
9. Guiguinto Nat'l Voc'l. High School	Guiguinto
10. Laura F. Halili National High School	DRT
11. Minuyan National High School	Norzagaray East
12. North Hills Village High School	Norzagaray West
13. Obando School of Fisheries	Obando
14. Partida High School	San Miguel North
15. Maronquillo National High School	San Rafael East
16. Romeo Acuña Santos MHS	Bulakan
17. Cay Pombo National High School	Sta. Maria East
18. Sta. Cruz High School	Sta. Maria West
19. San Miguel-Meysulao High School	Calumpit North
20. San Pedro National High School	Hagonoy East
21. Virginia Ramirez-Cruz National HS	Pandi North
22. Masagana High School	Pandi South

5. SHS-STEM – 1 participant/school

Name of Senior High School	District
1. Taal High School	Bocaue
2. San Francisco Xavier High School	Bulakan
3. Dr. Pablito V. Mendoza, Sr. HS	Bustos
4. Sta. Lucia National High School	Calumpit North
5. Caniogan High School	Calumpit South
6. Felizardo C. Lipana National HS	Guiguinto
7. Tiaong National High School	Guiguinto
8. Sapang Bulac High School	DRT
9. Iba National High School	Hagonoy East
10. Ramona S. Trillana HS	Hagonoy West
11. Obando Senior High School	Obando Senior High School
12. Dampol 2nd National High School	Pulilan
13. Sta. Peregrina HS	Pulilan
14. Dampol 1st National High School	Plaridel
15. Calawitan NHS	San Ildefonso North
16. Upig High School	San Ildefonso South
17. John J. Russell MHS (Sibul NHS)	San Miguel Central
18. Vedasto R. Santiago HS	San Miguel North
19. Lydia D. Villangca Trade School	San Rafael West
20. Sta. Maria National High School	Sta. Maria East
21. Catmon National High School	Sta. Maria Central