



4-H Env. Science and Technology (GPS/GIS and Robotics) In-Service
Saturday, October 17, 2009 from 10:00 a.m. to 3:00 p.m.
Location: Carroll County Agriculture Center, Westminster, MD



DEADLINE FOR REGISTERING: Friday, October 9, 2009

REGISTRATION: Please complete this registration form and then send it via one of the following methods:

- **Email to: dfrey@umd.edu**
- **FAX: 301-314-7146**
- **Mail: 8020 Greenmead Dr., College Park, MD 20740 ATTN: Debbie Frey**
- **Please make checks payable to: MARYLAND 4-H FOUNDATION and send with mailed form or bring to training if form is faxed or e-mailed. Payment made by FRS: Indicate FRS # below and include CED Signature.**

NOTE: If you fax or e-mail your form, you DO NOT need to mail the original form to the 4-H Office.

- **CONFIRMATION, CANCELLATIONS & QUESTIONS:** Registration confirmations will be sent via email or fax. **CANCELLATIONS RECEIVED AFTER THE REGISTRATION DEADLINE WILL NOT BE ENTITLED TO A REFUND** – Please contact **Debbie Frey** at the Maryland 4-H Center: 301-314-7824 or via email at dfrey@umd.edu if you have any questions regarding registration. **Questions regarding topics or educational materials may be directed to Denise Frebertshouser at 301-314-7819 or to Tanisha English, Tom Hutson, or Dwayne Murphy of Maryland 4-H.**

PARTICIPANT INFORMATION (PLEASE TYPE OR PRINT CLEARLY)

Name: _____ **COUNTY/CITY:** _____

Title (Educator, Volunteer, etc) _____ **Fax Number:** _____

Phone # _____ **Email Address:** _____

Address: _____

Please indicate your meal preference and any special needs you have:

- I prefer Chick Fil-A** **I prefer pizza** **I have special needs:** _____

Please indicate the afternoon session you would like to attend:

- GPS/GIS** **Robotics**

REGISTRATION FEE (please select payment) \$20.00 Fee includes Lunch and Materials

Check made payable to: MD 4-H FOUNDATION

FRS Number: _____ **CED Signature** _____

Equal Opportunity/Access Programs

Office Use Only: Entered: _____ Confirmation: _____ Paid Ck# _____



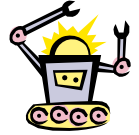
4-H Environmental Science and Technology In-Service:



Incorporating SET into Your 4-H Programs and Introduction to 4-H GPS/GIS and Robotics Programs



Saturday, October 17, 2009 from 10:00 a.m. to 3:00 p.m.
Location: Carroll County Agriculture Center, Westminster, MD



Attention 4-H employees, volunteers, teen leaders, and parents: Come join us at the Carroll County Agricultural Center on Saturday, October 17 for an exciting 4-H technology training! The purposes of this workshop are (1) to help participants incorporate 4-H Science, Engineering, and Technology (SET) into 4-H educational activities and (2) to familiarize participants with the basics of starting GPS/GIS and robotics programs in their home areas. Are you interested in BOTH afternoon sessions? Bring a friend, participate in different sessions, and share what you learned!

Learning Objectives

- Develop a better understand the components of 4-H Science, Engineering, Technology (SET) and how to incorporate SET into activities and programs.
- Understand the basics of working with robotics and GPS equipment/software.
- Identify real-life applications of robotics and GPS/GIS technologies.
- Prepare to set up and offer basic robotics and GPS activities, events, and clubs for youth in your county or city.

Agenda

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|---------------|---|--|
| 9:30 – 10:00 | Registration and refreshments | |
| 10:00 – 10:15 | Introduction and overview of activities | |
| 10:15 – 11:30 | Incorporating SET into your 4-H programs | |
| 11:30 – 12:00 | Lunch: Chick Fil-A sandwiches or pizza (choose one on registration form) will be provided by Carroll County 4-H members. Meals include chips or pretzels, apple or carrot and celery sticks, and a drink. | |
| 12:00 – 3:00 | Workshop Option A: GPS/GIS or Workshop Option B: Robotics | |
| 3:00 – 3:15 | Closing and Evaluation | |

Brief Description of Sessions



Morning session for all participants:

Incorporating SET into Your 4-H Programs

Dwayne Murphy of Baltimore County 4-H and other members of the 4-H SET Committee and Environmental Science & Technology Committee will provide participants with a hands-on, interactive introduction to the components of a successful SET program. Participants will learn useful techniques for emphasizing the science inherent in educational activities for youth. Each county and Baltimore City 4-H Office will also receive a copy of the Tools of the Trade II Curriculum CD-ROM that includes lots of useful SET information and activities.

Afternoon session (choose one option)

Workshop Option A: GIS/GPS



GIS/GPS Session:

Jim Kahler, USDA 4-H Program Specialist and Maryland 4-H Tech Team member, will lead participants through a hands-on, interactive workshop. This is your chance to learn the basics of handheld GPS (Global Positioning System) units and use them to mark waypoints outdoors. Next, you will go indoors to explore basic GIS (Geographic Information Systems) software and transfer waypoints to the computer. Finally, learn about the real-life applications of GPS/GIS, helpful websites, and tips for starting a GIS/GPS program.



Workshop Option B: Robotics

Maryland 4-H robotics volunteers Clyde Clarke, David Franc, and Arlene Lantz, along with members of the G-Force and Super Sonics 4-H Clubs, will lead participants through an informative and interactive session. Participants will learn the basics of how to organize a robotics program in various settings (i.e. club, afterschool, workshop). Participants will also have a chance to explore different robotics competitive formats including FIRST and VEX through interaction with the equipment, volunteers, and youth. Your comfort level and knowledge in conducting robotics programs will increase after attending this workshop!

LOCATION and DIRECTIONS

Carroll County Agriculture Center is located at 706 Agriculture Center Dr, Westminster, MD 21157

Directions

From the North:

(directions given from Hanover, PA to the Ag Center) Take Rt. 94 South (becomes MD Rt. 30 at the state line). Follow 30 to Manchester and turn right on Rt. 27. Follow Rt. 27 to Rt. 140 East (in Westminster). Turn left onto the ramp to 140 East and travel to the first traffic light. Turn right onto Center Street. Take Center Street through two traffic lights to Gist Road. Turn right on Gist Road and follow signs to new entrance. Turn right onto new Ag Center drive.

From the South:

Take Interstate 270 North to Rt. 27. Follow Rt. 27 to Kate Wagner Road. (Kate Wagner Road intersects Rt. 27 before you reach the city of Westminster) Make a right onto Kate Wagner Road (which intersects Rt. 27 at a traffic light) and follow approximately 1.2 miles. Turn left onto Gist Road. Continue on Gist Road until you reach Smith Ave at stop sign. Continue on Gist Road about 1/2 block and make left at new Ag Center entrance,

From the East:

From Baltimore Beltway 695, take Interstate 795 north toward Westminster. Follow the signs onto MD 140 and take 140 into Westminster. Turn left onto Center Street. Take Center Street through two traffic lights to Gist Road. Turn right on Gist Road and follow signs to new entrance. turn right onto new Ag Center drive.

From the West:

Take I-70 East to the Mt. Airy/Route 27 Exit. Head North on Rt. 27 toward Westminster for approximately 15 miles. Make a right onto Kate Wagner Road (which intersects Rt. 27 at a traffic light) and follow approximately 1.2 miles. Turn left onto Gist Road. Continue on Gist Road until you reach Smith Ave at stop sign. Continue on Gist Road about 1/2 block and make left at new Ag Center entrance.

REGISTRATION

The Registration fee is \$20.00, which includes: lunch and materials.

Cancellations received after the Registration deadline will not be entitled to a refund.

QUESTIONS?

Please contact Debbie Frey at the Maryland 4-H Center: 301-314-7824 or via email at dfrey@umd.edu if you have any questions regarding registration. Questions concerning topics or educational materials may be directed to Denise Frebertshauser at 301-314-7819 or via email at dfrebert@umd.edu.