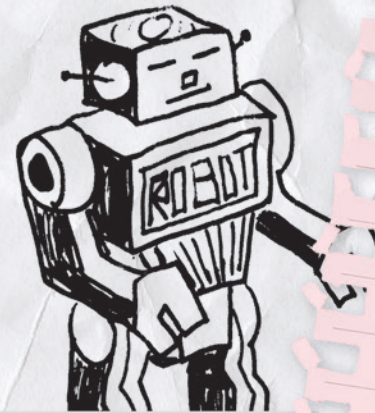


# MAKE TRAX



## Research Information

Duration of Lesson: 50 minutes



### Students will:

- Link GPS data (or address information) to photos and upload photos to their route-specific file.
- Generate a map showing locations of photos.
- Add field notes of photos to the map.

### Equipment and Materials:

**Note:** In Lesson 1 you made a decision for your class regarding collection of location data and linking photos to location data. Adapt the equipment (if any) and resources your students used during the field activity. Consult "4 Ways to Map Route Conditions" for more information.

- 4 Ways to Map Route Conditions table. ⓘ
- Computers with Internet access and photo upload capacity (cable connection to digital camera or CD drive)—(if used) 1 per 3-5 students.
- GPS receivers and cameras used for field activity. Photos will be moved onto the computer. If a disposable digital camera was used, the photos need to be stored on a CD prior to this class session.
- Notes made during field activity.
- Route maps.
- RoboGeo software or [www.flickr.com](http://www.flickr.com).
- RoboGeo Quick Lesson (directions to link photographs and location data if using RoboGeo)—1 per team. ⓘ
- Example of Route Map with Photos—1 per team. ⓘ

### Resources:

- [www.flickr.com](http://www.flickr.com)  
Steps to use flickr to link photos and location data
- [www.robogeo.com/home](http://www.robogeo.com/home)  
RoboGeo information

### Note on Information Storage and Synchronization:

Photos need to be downloaded to a computer and also backed-up using [flickr.com](http://flickr.com) or some other website. GPS logs should also be downloaded to a computer.

# MAKETRAX™



## Activities: 45 minutes

### 40 minutes

1. Distribute the field activity equipment (GPS and camera) to the student teams. Check that teams get the same equipment they used during the field activity.
2. Distribute handouts and directions that students need for today's activity.
3. Explain and demonstrate the steps to link photos and location data. Your explanation and demonstration is based on the equipment and method your students used to capture location data.
4. Show and explain the Example Route Map with Photos. Students will have their own route map with photos at the end of today's lesson.
5. Tell teams:
  - Get their field activity notes and route maps.
  - Link their digital photos and location data and generate their maps.
  - Save their work.
6. Show, or describe, how to open each photo by clicking on the icon.
7. Tell students:
  - Open the saved map and click on each photo icon on the map.
  - Notice the text box that appears when the icon is clicked.
  - Type the field notes for each photo in the text box.
  - Save their work.

### 5 minutes

8. Ask each team to describe the most hazardous conditions on their route.
9. Discuss other reasons students do or do not walk to school, such as attitudes about walking versus arriving by car, the distance from a student's home to school, and other local factors that influence walking.

### Review: 5 minutes

1. Ask students how the larger community can benefit from their MakeTrax project.
2. Thank students for their community service!