



# Science Experiment:

## Project: Coding

### Lesson 4, Relay Programming

#### **Supplies:**

Lined paper or graph paper

Pencils

2 tables.

Multiple copies of a 6X6 graph paper drawing, for suggestions see the reference at the bottom of the page.

#### **Time:**

30 minutes

#### **What to Do:**

1. Divide a group of youth into teams of 4-6 people
2. On one side of the gathering or open space have a station with a 6X6 graph paper drawing, a piece of paper, and pencil for each team.
3. Line up each team in a row on the opposite side of the room (think of a relay race running across the room)
4. Explain the following rules to the youth:
  - a. One person from each team must hurry to the “station”, across the room.
  - b. The person must write the first programming symbol for the graph paper drawing.
  - c. They then must hurry back across the room and tag the next person in their row.
  - d. The tagged person will go across the room to the station and review the teammate’s work.
    - i. If correct, they will add another symbol.
    - ii. If they find an error, then they will only correct the error.
  - e. They then hurry back and tag the next teammate who will review and edit or add the next.
  - f. This continues until a team completes their graph paper drawing programming.

#### **Reflect:**

Would it be easier or harder to have fewer in a group or a large number of individuals writing code?

What are some of the challenges of debugging code written by another person?

#### **Apply:**

How can working as a team make it easier to make errors? Or make it easier to avoid errors?

What are some of the advantages of having another person look over your work?

#### **Resources:**

K-8 Intro to Computer Science Course (2013). Retrieved from <http://learncode.org>