

Planning Sheet

1 What problem are you solving?

Evo needs to get to Science Class on time.

2 Criteria and Constraints

Define criteria: What needs to happen

Define constraints: Limitations

Solution criteria for your design:

a) Evo needs to get from the Lunchroom to the Science Room.

b) Use 5 Color Codes.

Solution constraints for your design:

a) Evo has 30 seconds to get there.

b) Evo must go through classrooms.

c) Evo can't go through walls.

d) Evo must travel on a line.

3 Brainstorm

Use the back of this sheet to write all the ideas no matter how crazy, complicated, or simple they seem.

4 Select a Solution

The solution I chose is: I will use fast, turbo and nitro boost codes as well as backwalk and spin codes
while avoiding closed hallways.

Planning Sheet

5 Develop your engineering model

The simple plan for my model is: a black line with color codes in appropriate places.

6 Test the Model

When I tested my model, I found that: I needed more space for backwalk and spin, and I needed to put the fast code after the trick codes or my bot went back to cruise speed.

7 Modify the Model

I will modify my model by: putting speed codes after trick codes, and moving backwalk and spin to longer straight stretches of line.

8 Communicate the results of your engineering design

My Evo completed the victory dance in the science room just seconds before turning off!

It was important that the speed codes came after the trick codes so that Evo would speed up again.

Activity Sheet

