

Progress Monitors for Coding Projects in Module 1

Flower/Painting Turtles Progress Monitor (Agent Affecting Environment)

Goals:

- Create Turtles that are separated by 5 steps. *[hint: Setup]*
- Have them draw a flower. *[hint: Forever with pendown. forward and left by]*

Bonus:

- Use the random block in turtle movement commands. *[hint: "right by" random amount]*
 - Use one block you haven't used before.
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Bumper Turtles Progress Monitor (Agent-Environment Interactions)

Goals:

- Add logic so turtles react to red squares by turning right by 90 degrees
- Add logic so turtles react to blue squares by turning left by 90 degrees
- Add logic so turtles react to black squares by turning around 180 degrees

Bonus:

- Change the number of landmarks drawn in the "Paint Landmarks" procedure.
 - Use one block you haven't used before.
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Colliding Turtles Progress Monitor (Agent-Agent Interactions)

Goals:

- Create turtles of two different colors, red and blue, and do not have them leave trails.
- Have the turtles move forward with a little wiggle in their walk.
- Upon colliding with a red turtle, have blue turtles react by changing their color to red.
- Add logic so turtles react to each other.
- Change a turtle's trait after a collision. [size, color, shape, ?]
- Save your project, upload, and share:

Bonus:

- Create a new turtle after a collision.
 - Use one block you haven't used before.
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Epidemic Model Progress Monitor

Goals:

- Create several hundred blue turtles and a few red turtles. *[hint: Setup]*
- Make them wiggle: *[hint: Forever]*
- Create a collision block in which blue turtles turn red when they encounter red turtles. *[hint: Lesson 4 Student Activity #2 Guide]*
- Create a slider and an if-then for the probability of transmission rate. *[hint: Lesson 4 Student Activity #2 Guide]*
- Create a slider and an if-then for the recovery rate. *[hint: Lesson 5 Student Activity #2 Guide]*

Bonus:

- Add a line graph with a line for infected turtles and one for healthy turtles. *[hint: Lesson 6 Student Activity #1]*
- Add a slider (or more) for one (or more) of the following:
 - Number of original healthy population
 - Number of original sick population
- Use one block you haven't used before.