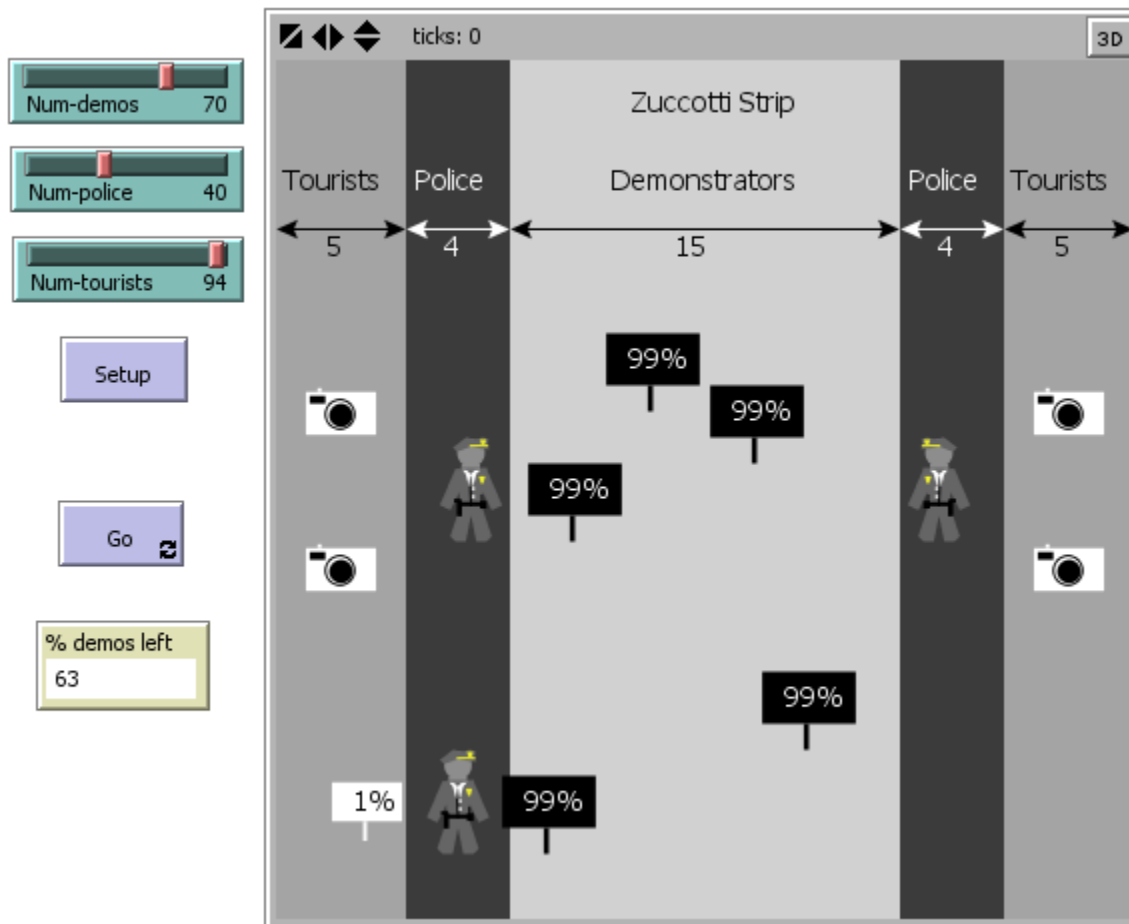


NETLOGO:



In this version of OccupyNetLogo, you'll be creating a model of the Zuccotti Strip, where demonstrators representing 99% of all comp. sci. students will be protesting excessive questions on the final.

Setting up the model:

- 1) Write the code to create breeds for the 3 types of people involved here. Occasionally a demonstrator will be arrested and taken away, and occasionally a tourist will be radicalized and want to become a demonstrator, so give each turtle two new properties: *arrested?* and *radicalized?*
- 2) The width of the demonstrators' area is 15, and you can see the other dimensions in the diagram above. The visual area is square, with the origin, as always, in the center. **Write a procedure, named *Color-strips***, which will color the demonstrators' area green, the police areas blue, and the tourists' areas gray.
- 3) The 3 sliders will be set by the user to indicate how many of each type of person to populate

the world. The following shapes already exist: “demo”, “police-left”, “police-right”, “tourist”.
Write a procedure named *Populate* that will populate the appropriate areas with the right number of each type of person, For instance, if Num-police = 12, then place 6 policemen in each of the two police areas (assume the numbers for police and tourists are even). You can spread the people out in their areas in any way you like, as long as they’re not all on top of each other.

4) Write a procedure named *Setup* that will clear everything that might have been in the visual area, then call the *Color-strips* and *Populate* procedures and make sure that all turtles set their *arrested?* and *radicalized?* properties to False.

Running the model:

5) Write a procedure named *All-Wiggle* which will make most participants take a small step (0.1) and then a small turn (no more than 7 degrees in either direction). This will apply to all turtles, except demonstrators who are arrested (have *arrested?* = True), and all tourists who are radicalized -- these two types of turtles will not wiggle. Make sure that after the wiggle, each type of turtle remains in its own designated territory. Tourists may move more freely between their two areas.

6) Write a procedure named *Change-state* that will do the following: After each step, each demonstrator who is not arrested, has a 2/1000 chance of being arrested (having its *arrested?* property set to True). Also after each step, each tourist who is not radicalized, has a 3/70 chance of being radicalized.

7) Write a procedure named *Convert* that will govern the behavior of the arrested demonstrators and radicalized tourists.

Demonstrators: Each arrested demonstrator will take a small step (0.2) toward one of the police areas. If the police area has been reached, that demonstrator will disappear (die).

Tourists: Each radicalized tourist will take a small step (0.2) toward one of the police areas. If the police area has been reached, the tourist will jump directly onto a random spot in the demonstrators’ area and turn into a demonstrator.

8) Create a reporter called *PDL* that reports the percent of demonstrators among the entire population of turtles. Example: if there are 40 demonstrators and 30 police and 130 tourists, then *PDL* will report 20 (because 20% of all turtles currently are demonstrators).

9) Write a procedure named *Go* that will call ***all-wiggle***, ***change-state***, and ***convert***. If the number of demonstrators diminishes to 0, then remove all remaining turtles and call the Stop command.