For this challenge, you are to build a simple *falling-sand* style particle simulation with two types of particles: sand represented by the ‘.’ character, and stone represented by the ‘#’ character. The simulation starts with a grid with a line of sand on the top and some stones like below:

|  |  |  |  |
| --- | --- | --- | --- |
| . | . | . | . |
|  |  |  | # |
| # | # |  |  |
|  | # | # | # |

Your program should then step through by having the sand ‘fall’ from top to bottom, and stopping when encountering a stone. The program should stop once sand cannot fall any further. So the next steps in the example would be:

|  |  |  |  |
| --- | --- | --- | --- |
|  |  |  | . |
| . | . | . | # |
| # | # |  |  |
|  | # | # | # |

|  |  |  |  |
| --- | --- | --- | --- |
|  |  |  | . |
| . | . |  | # |
| # | # | . |  |
|  | # | # | # |

For this challenge, start with the **SandDrop - Template.vit** provided which includes a table and the **SandDropInit.vi** which will set a random initial condition for the simulation. Your simulation should include a delay between steps so that you can watch the sand drop in the simulation.