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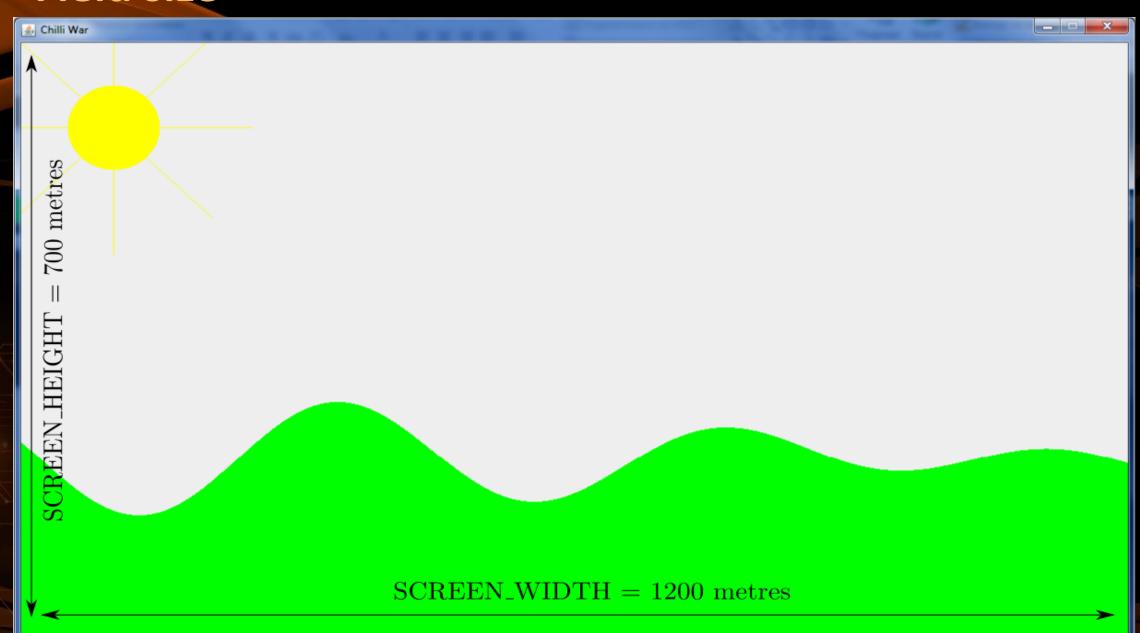
Asya Dikova





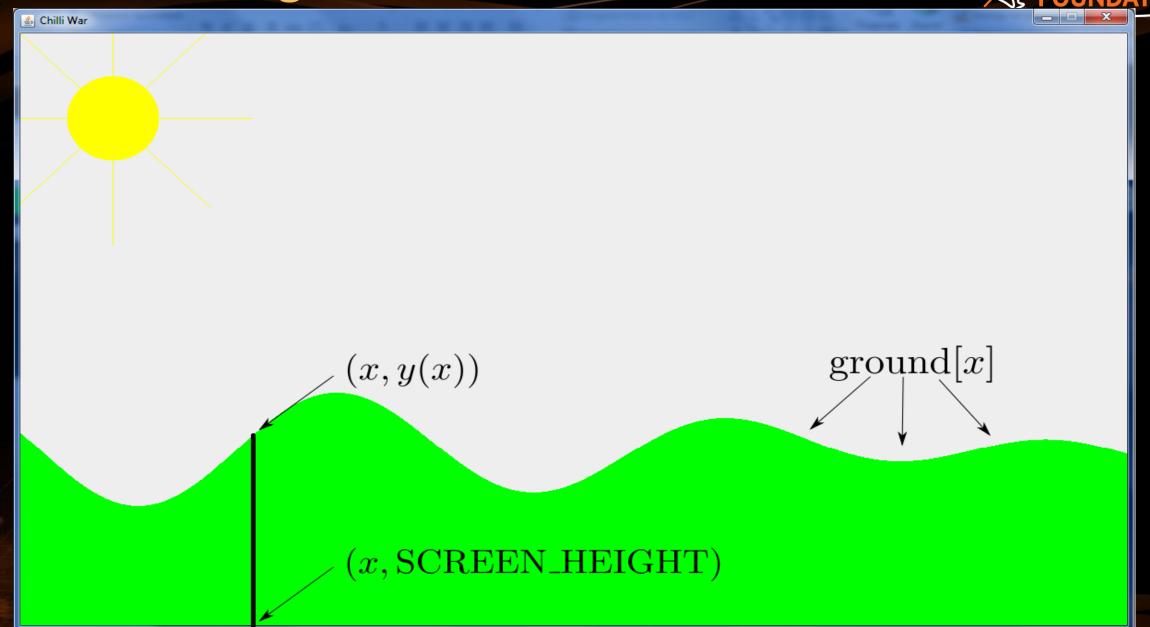
https://github.com/JavaTeamwork/JavaGamePuf/commits/master

## Field size



# Define the ground





#### Define the ground 2





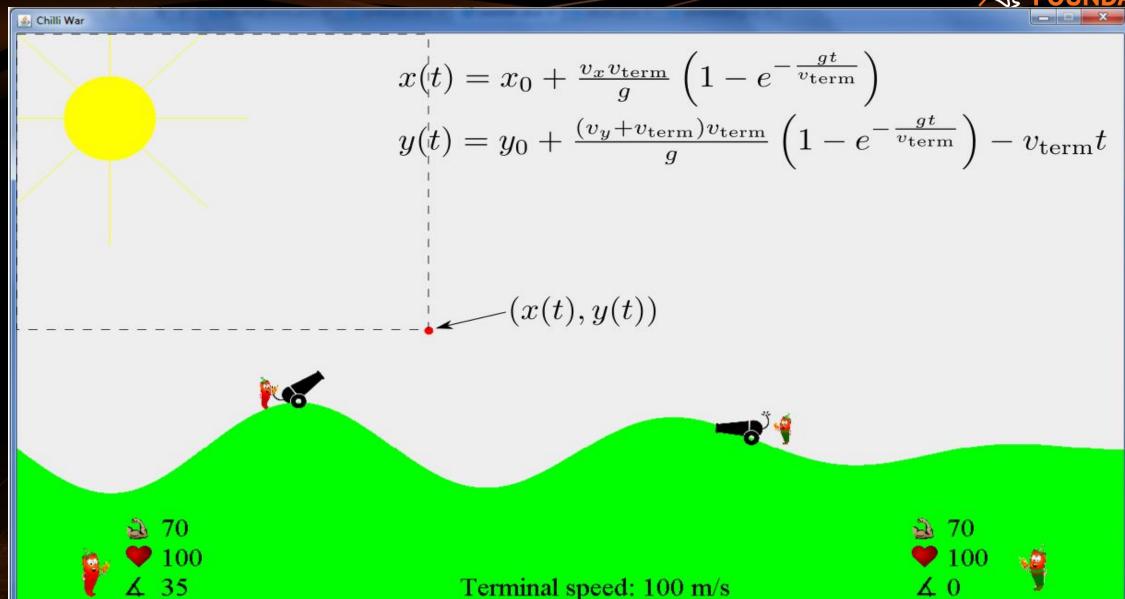
$$y(x) = \sum_{n=1}^{10} a_n \sin(b_n x + c_n)$$

 $a_n, b_n, c_n$  - random numbers

 $(x, SCREEN\_HEIGHT)$ 

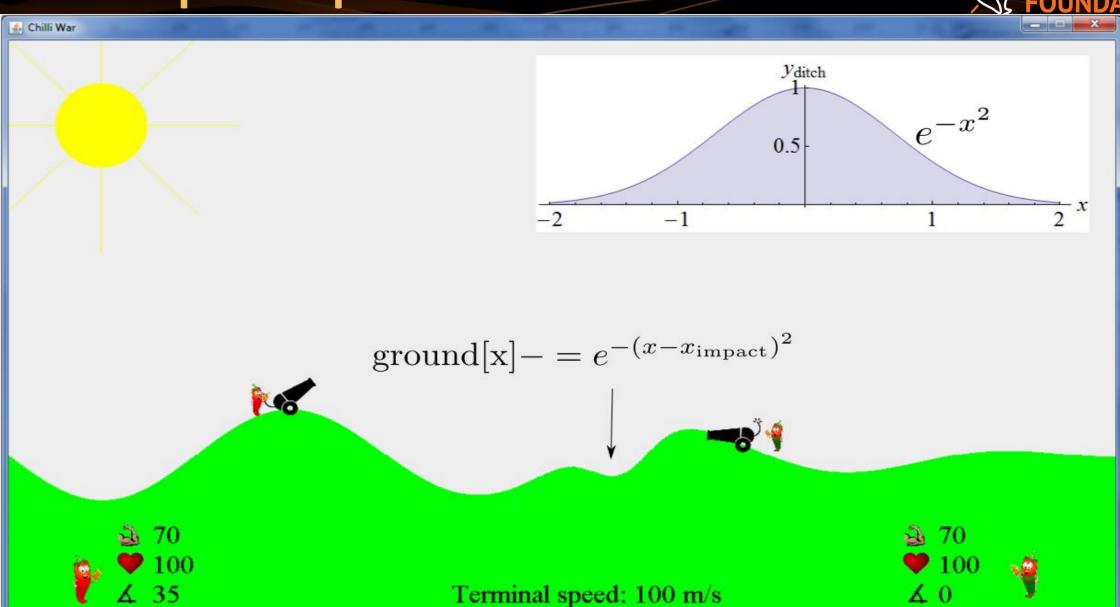
#### Calculate the coordinates of the ball





### Ditch upon impact



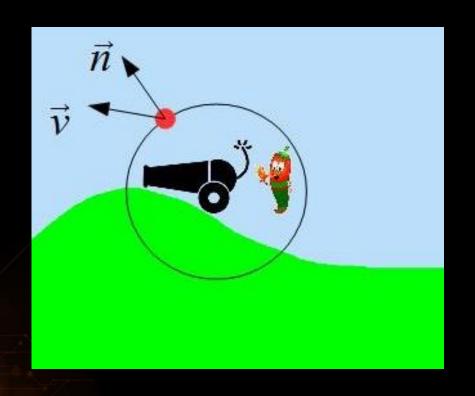


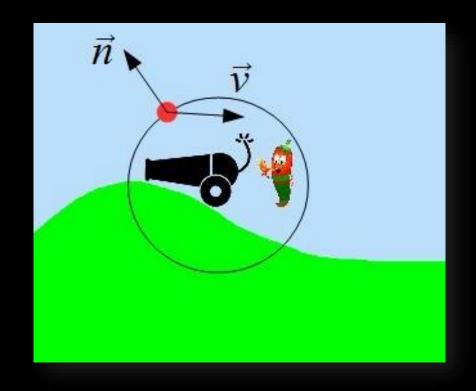
# Check whether any player is hit



If  $\vec{n} \cdot \vec{v} > 0$ , the player is not hit

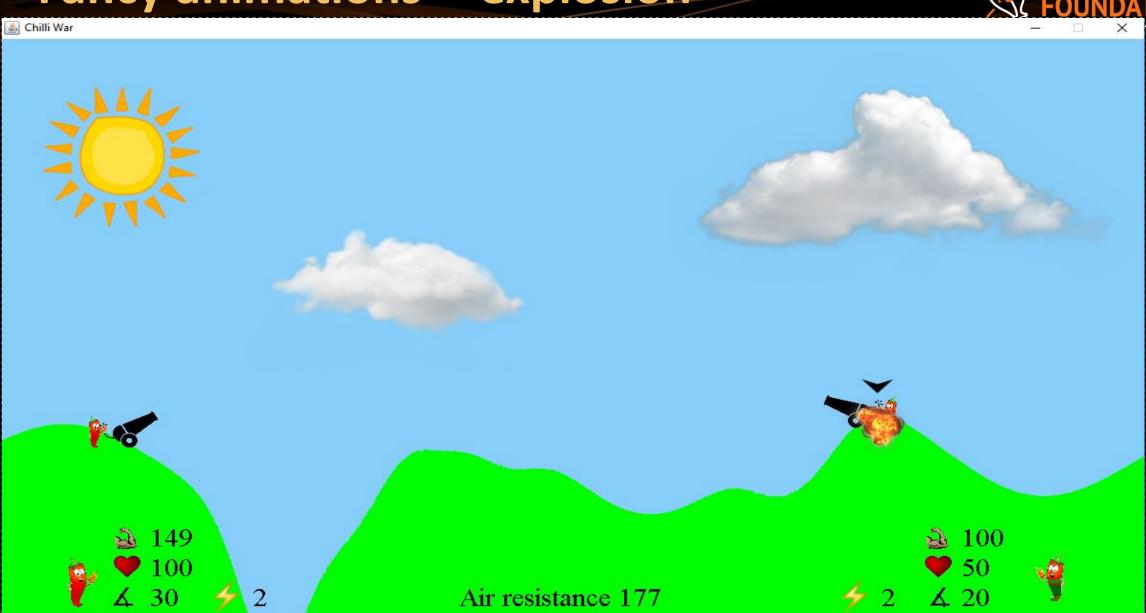
If  $\vec{n} \cdot \vec{v} < 0$ , the player is hit





### Fancy animations -- explosion





#### Fancy animations – thunder strike



