

# Equations used for this project

[github.com/piotrkkoss](https://github.com/piotrkkoss)

[Used Source](#)

Equations of the Gray-Scott Model

$$\begin{aligned}\partial u / \partial t &= (D_u * \nabla^2 u) - (u * v^2) + (f * (1 - u)) \\ \partial v / \partial t &= (D_v * \nabla^2 v) + (u * v^2) - ((k + f) * v)\end{aligned}$$

Symbol	Description
$u$	Concentration of Activator
$v$	Concentration of Inhibitor
$D_u, D_v$	Diffusion Rates of Chemicals
$\nabla^2 u, \nabla^2 v$	Laplacian - Spatial Diffusion
$f$	Feed rate of $u$
$k$	Kill rate of $v$
$\partial u / \partial t, \partial v / \partial t$	Time Derivatives of Concentrations