

# Framsticks little how-to

Szymon Ulatowski

[www.framsticks.com](http://www.framsticks.com)

# How to... limit creature size?

Limiting  
creature size

Detecting  
food and  
creatures

Customizing  
graphics  
styles

In some experiments creatures tend to grow big but it doesn't lead to interesting results and prevents real improvements.

# How to... limit creature size?

## Limiting creature size

## Detecting food and creatures

## Customizing graphics styles

In some experiments creatures tend to grow big but it doesn't lead to interesting results and prevents real improvements.

- You can disable genetic modifications of the body
- You can use a penalty in fitness function (applicable to “standard.expdef” and similar experiments), change:

```
return someformula;
```

into:

```
var f = someformula;  
if (this.numparts > ...)   
    f = 0;  
return f;
```

- You can change the experiment definition to stop big creatures from appearing, for example, check `Genotype.numparts` before calling `createFromGenotype()`

# How to... detect food, detect other creatures?

Limiting  
creature size

Detecting  
food and  
creatures

Customizing  
graphics  
styles

Standard smell sensor (S) reacts to all energy sources – food pieces and living creatures. Can I make my foodfinder ignore other creatures and look only for food?

# How to... detect food, detect other creatures?

Limiting  
creature size

Detecting  
food and  
creatures

Customizing  
graphics  
styles

Standard smell sensor (S) reacts to all energy sources – food pieces and living creatures. Can I make my foodfinder ignore other creatures and look only for food?

- An example neuron script “smell\_1.neuro” is the food-only detector. Its classname is “S1”, so you can
  - change all “S” neurons in your genotype into “S1” neurons (recommended), or
  - modify the script (change “name:S1” to “name:S”). This will change the default “S” behavior for all creatures!

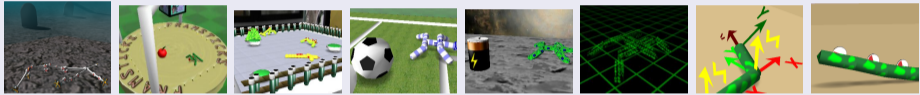
# How to... make my own “skin” for Framsticks?

Limiting  
creature size

Detecting  
food and  
creatures

Customizing  
graphics  
styles

There are several “Visual Style” settings in Framsticks User Interface. Is it possible to add my own style?



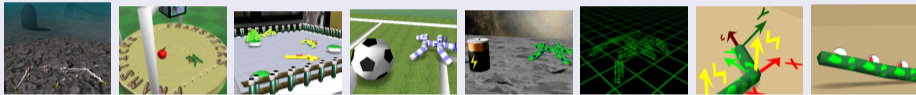
# How to... make my own “skin” for Framsticks?

Limiting creature size

Detecting food and creatures

Customizing graphics styles

There are several “Visual Style” settings in Framsticks User Interface. Is it possible to add my own style?



- A simple way to create customized visual style:
  - Create the “mystyle” subfolder in the “3dobj” folder
  - Copy “standard.style” or “arena.style” file to your subfolder and rename it to “this.style”
  - You can open the style file in a text editor and modify some fields, like “name:My Favorite Name”
  - This style will show up in the style selector and will work like the standard one. To change the appearance, simply copy one of the graphics files from “3dobj” into your folder and edit the file, for example draw your name on “framcircle2.png” or “miniframlogo.png”.