

## predictive.js

```
1  var up = 38;
2  var down = 40;
3  var right = 39;
4  var left = 37;
5  var key_status = {up: 0, down: 0, right: 0, left:0};
6  var base_margin = 0;
7  var base_image_width = 1024;
8  var pixel_turn_rate = 30;
9  var pixel_scale_rate = 5;
10
11 var horizontal_move = 0;
12 var scale_move = 0;
13 var horizontal_px_move = 0;
14 var scale_px_move = 0;
15
16 var update_interval = 25;
17 var perceived_delay = 710;
18
19
20 var bodW = 0;
21
22 function sleep(ms) {
23   return new Promise(resolve => setTimeout(resolve, ms));
24 }
25
26 async function update_hor_with_delay(amount, delay){
27   await sleep(delay);
28   horizontal_move += amount;
29 }
30
31 async function update_scale_with_delay(amount, delay){
32   await sleep(delay);
33   scale_move += amount;
34 }
35
36 var x = setInterval(function() {
37   if (key_status[up]){
38     scale_move += 1;
39     update_scale_with_delay(-1, perceived_delay);
40
41     var factor = 0.8;
42     if (key_status[left]){
43       horizontal_move += factor;
44       update_hor_with_delay(-factor, perceived_delay);
```

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```
45         } else if (key_status[right]){
46             horizontal_move -= factor;
47             update_hor_with_delay(+factor, perceived_delay);
48         }
49     } else if (key_status[down]){
50         scale_move -= 1;
51         update_scale_with_delay(1, perceived_delay);
52
53         var factor = -0.8;
54         if (key_status[left]){
55             horizontal_move += factor;
56             update_hor_with_delay(-factor, perceived_delay);
57         } else if (key_status[right]){
58             horizontal_move -= factor;
59             update_hor_with_delay(+factor, perceived_delay);
60         }
61     } else if (key_status[left]){
62         horizontal_move += 1;
63         update_hor_with_delay(-1, perceived_delay);
64     } else if (key_status[right]){
65         horizontal_move -= 1;
66         update_hor_with_delay(+1, perceived_delay);
67     }
68
69     var new_width = base_image_width + scale_move*
pixel_scale_rate;
70     var new_margin_left = (bodW-new_width)/2 +
horizontal_move*pixel_turn_rate;
71
72     horizontal_px_move = base_margin+horizontal_move*
pixel_turn_rate;
73     scale_px_move = base_image_width+scale_move*
pixel_scale_rate;
74     margin_left = (bodW-scale_px_move)/2+scale_move*
pixel_scale_rate;
75     document.getElementById("stream").style.width = `${
new_width}px`;
76     document.getElementById("stream").style.marginLeft = `${
new_margin_left}px`;
77 }, update_interval);
78
79 function set_base_margin(){
80     var myImage = new Image();
81     var img = document.getElementById("stream");
```

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```
82     myImage.src = img.src;
83     var imgW = myImage.width;
84     bodW = document.body.clientWidth;
85     base_margin = (bodW-imgW)/2;
86     document.getElementById("stream").style.marginLeft = `${
      base_margin}px`;
87     document.getElementById("overlay").style.left = `${
      base_margin}px`;
88 }
```