


### Constants:




missile-image 

tank-image : 

invader-image : 

H (height)

W (width)

~~$W_i$  : image-width ~~  
 ~~$H_i$  : image-height ~~  
 ~~$H_t$  : image-height ~~

### changing:

tank horizontal position:  $x_t$

tank horizontal <sup>direction</sup> speed:  $dx_t$  Integer  $[-1, 1]$

invader horizontal position:  $x_i$

invader ~~horizontal~~ vertical position:  $y_i$

missile vertical position:  $y_m$

### Big-Bang Options:

on-tick

to-draw

on-key

stop-when

Constants Supplements :

invader-x - speed

invader-y - speed

tank - speed.

missile - speed.

HIT-RANGE

INVADE-RATE

TANK-HEIGHT / 2 : ( / (image-height TANK) 2 )

Control Options:

1. change  $dx$  to  $-dx$  when  $x > W$  or  $x < 0$

2.  $x_t$  does not change at start.

3. If  $X_t$  traverse from  $>0$  to  $<0$ ,  $X_t$  will stop at  $0$ . where it was.

4. If  $x_t$  traverse from  $< W$  to  $> W$

4. If  $x_t$  traverse from  $< W$  to  $> W$ ,  $x_t$  will stop at ~~the~~ where it was.

5. ~~the~~ missile will start at  $(x_t, H)$ , when  $y_m < 0$ , the missile will be filtered.

$$X_i - \text{HIT-RANGE}$$
$$X_v + \text{HIT-RANGE}$$

6.  $7f$   $\frac{\cancel{W_i}}{2} < x_m < \frac{\cancel{W_i}}{2}$

and

4i-ITRANGE

$$y_i - \text{J-TRANGE} \quad y_i + \text{HIT-RANGE}$$

both missile and the invader are filtered.

7. If  $y_m > H$ , the world will stop.