

Reference – pencilcode.net

Movement

fd 50 forward 50 pixels
bk 10 backward 10 pixels
rt 90 turn right 90 degrees
lt 120 turn left 120 degrees
rt 90, 50 do a 90° arc of radius 50
home() go to the page center
slide x, y slide right x and forward y
moveto x, y go to x, y relative to home
turnto 45 set direction to 45 (NE)
turnto obj point toward obj
speed 30 do 30 moves per second

Appearance

ht() hide the turtle
st() show the turtle
scale 8 do everything 8x bigger
wear yellow wear a yellow shell
fadeOut() fade and hide the turtle
remove() totally remove the turtle

Output

see obj debug the value of obj
write 'hello' writes a line of HTML
p = write 'hm' saves an HTML element
p.html 'done' changes old text
append 'ok' text without a new line
button 'go', adds a button with
-> fd 10 an action
read (n) -> adds a text input with
write n*n an action
t = table 3,5 adds a 3x5 <table>
t.cell(0, 0). selects the first cell of the
text 'aloha' table and sets its text
ct() clear text

Drawing

pen blue draw in blue
pen red, 9 9 pixel wide red pen
pen null use no color
pen off pause use of the pen
pen on use the pen again
label 'X' draw the letter X
dot green draw a green dot
dot gold, 30 30 pixel gold circle
pen path trace an invisible path
fill cyan fill traced path in cyan
cg() clear graphics

Properties

turtle name of the main turtle
getxy() [x, y] position relative to home
direction() direction of turtle
hidden() if the turtle is hidden
touches(obj) if the turtle touches obj
inside(window) if enclosed in the window

Objects

t = new Turtle make a new turtle
p = new Piano 88 make a new 88-key piano
g = \$('img') select all as a set

Other Functions

tick 5, -> fd 10 go 5 times per second
click -> fd 10 go when clicked
random [3,5,7] return 3, 5, or 7
random 100 random [0..99]
play 'ceg' play musical notes
\$(window) the visible window
\$('p').eq(0) the first <p> element
\$('#zed') the element with id="zed"

Colors

white	gainsboro	silver	darkgray	gray	dimgray	black
whitesmoke	lightgray	lightcoral	rosybrown	indianred	red	maroon
snow	mistyrose	salmon	orangered	chocolate	brown	darkred
seashell	peachpuff	tomato	darkorange	peru	firebrick	olive
linen	bisque	darksalmon	orange	goldenrod	sienna	darkolivegreen
oldlace	antiquewhite	coral	gold	limegreen	saddlebrown	darkgreen
floralwhite	navajowhite	lightsalmon	darkkhaki	lime	darkgoldenrod	green
cornsilk	blanchedalmond	sandybrown	yellow	mediumseagreen	olivedrab	forestgreen
ivory	papayawhip	burlywood	yellowgreen	springgreen	seagreen	darkslategray
beige	moccasin	tan	chartreuse	mediumspringgreen	lightseagreen	teal
lightyellow	wheat	khaki	lawngreen	aqua	darkturquoise	darkcyan
lightgoldenrodyellow	lemonchiffon	greenyellow	darkseagreen	cyan	deepskyblue	midnightblue
honeydew	palegoldenrod	lightgreen	mediumaquamarine	cadetblue	steelblue	navy
mintcream	palegreen	skyblue	turquoise	dodgerblue	blue	darkblue
azure	aquamarine	lightskyblue	mediumturquoise	lightslategray	blueviolet	mediumblue
lightcyan	paleturquoise	lightsteelblue	cornflowerblue	slategray	darkorchid	darkslateblue
aliceblue	powderblue	thistle	mediumslateblue	royalblue	fuchsia	indigo
ghostwhite	lightblue	plum	mediumpurple	slateblue	magenta	darkviolet
lavender	pink	violet	orchid	mediumorchid	mediumvioletred	purple
lavenderblush	lightpink	hotpink	palevioletred	deeppink	crimson	darkmagenta