



Transform

Move, scale, and turn items

Transitions

BASIC

move my item 1 meters forward

in 1 sec.

turn my item clockwise by 180° by 1 sec.

stop transition of my item

PRO

move my item on path my path

in 5 sec.

move my item

to x: 0 y: 0 z: 0

in 1 sec.

Operators

Use math and logic

Logic

PRO

1 = 10

false and false

not false

test false

if true 1

if false 2

Math

PRO

1 + 1

random integer from 0 to 100

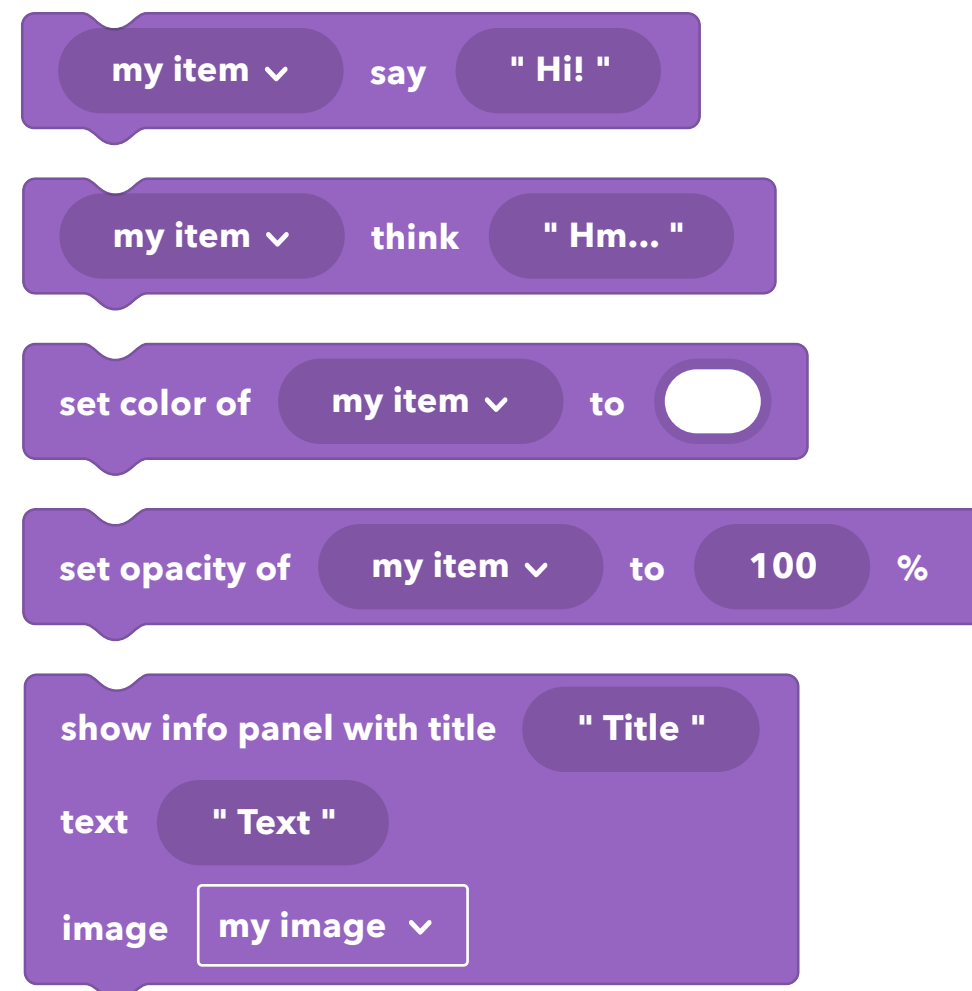
CoBlocks overview

Actions

Perform item actions, display panels, play sound and music

Generic

BASIC



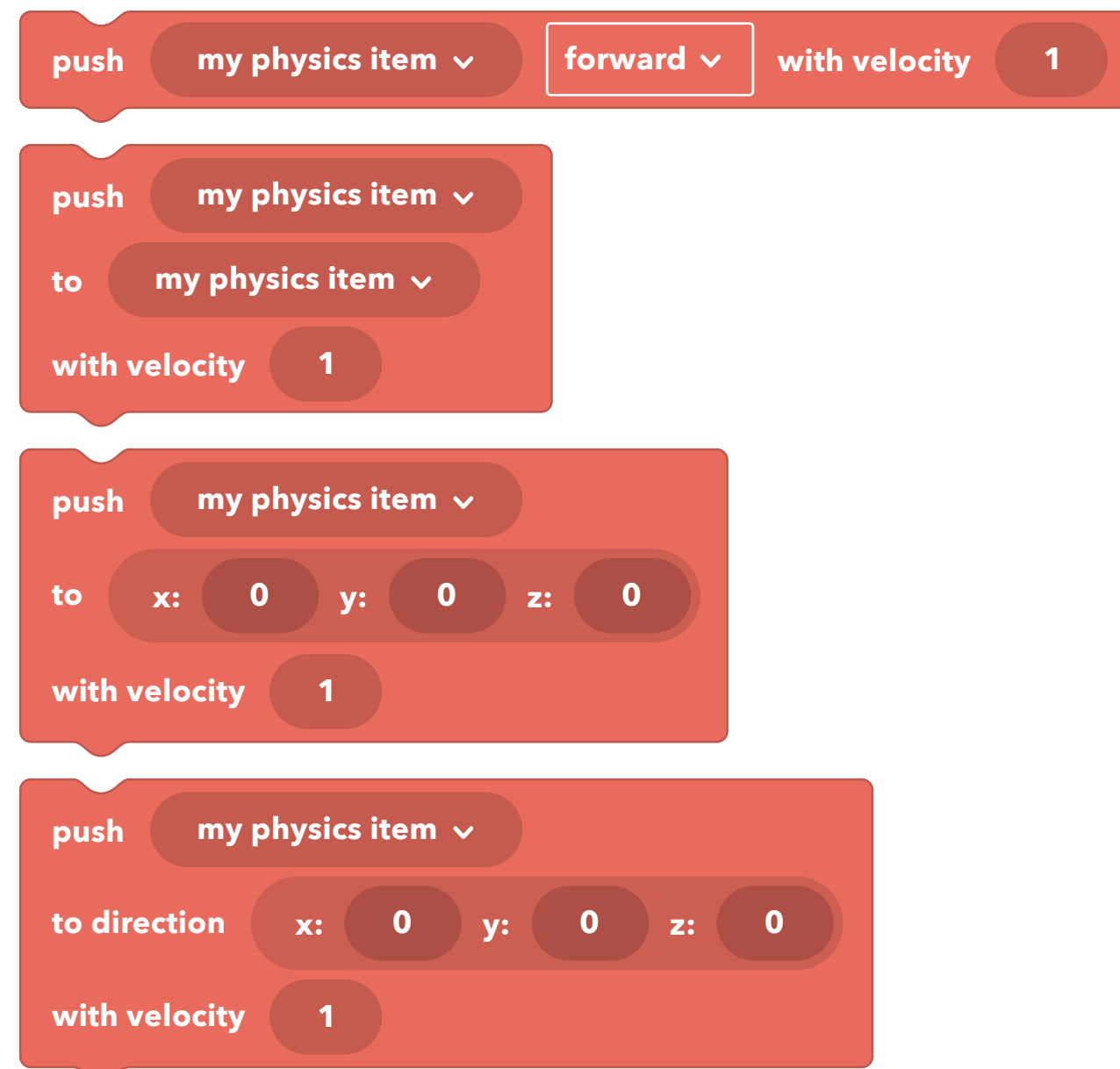
A collection of five purple blocks for generic actions. The first block is 'say "Hi!"' with a dropdown 'my item'. The second is 'think "Hm..."' with a dropdown 'my item'. The third is 'set color of my item to' with a color picker. The fourth is 'set opacity of my item to 100 %'. The fifth is a larger 'show info panel with title "Title"' block containing 'text "Text"' and 'image my image'.

Physics

Add physics simulation to your items

Simple

PRO



A collection of four red blocks for simple physics actions. The first is 'push my physics item forward with velocity 1'. The second is 'push my physics item to my physics item with velocity 1'. The third is 'push my physics item to x: 0 y: 0 z: 0 with velocity 1'. The fourth is 'push my physics item to direction x: 0 y: 0 z: 0 with velocity 1'.

Control

Use if statements and loops

Loops

BASIC

repeat 1 times

PRO

forever

repeat for i from 1 to 10 with step 1

repeat while false

for each element in my variable

break out of loop

Data

Create values and variables

Values

PRO

false

0

π

null

random color

color of my item

color with 100 0 0

Items

Modify and create items

Modify

PRO

add child

my item ▾

to

my item ▾

attach

my item ▾

slot

Top ▾

to

my item ▾

slot

Top ▾

detach

my item ▾

from parent

delete

my item ▾

delete all children of

my item ▾

add physics to

my item ▾

remove physics from

my item ▾

MERGE Cube

Program unique MERGE Cube interactions

Actions

PRO

place

my item ▾

of

Top ▾

cube side

set opacity of cube to

100

%

set cube inside visible

true ▾

Events

PRO

when cube is clicked

run only once

false ▾

turn my item clockwise by 180°
with radius 1 meters in 1 sec.

turn my item clockwise
origin x: 0 y: 0 z: 0 local
direction x: 0 y: 0 z: 1 local
angle 90° in 1 sec.

scale my item by 2 in 1 sec.

turn my item clockwise
around axis x: 0 y: 0 z: 1
in 90° in 1 sec.

random number from 0 to 1

constrain 1 from 1 to 100

0 is even

0 divisible by 3

remainder of the division 0 by 2

round 0

round 0 to 2 decimals

square root 0

sin 0

sum of list my variable

Scale

PRO set scale of my item to 2
scale of my item

Position

PRO set position of my item
to x: 0 y: 0 z: 0
position of my item
distance between my item and my item

Events

Create item and click events

Input

BASIC when my item is clicked
PRO when my item is hovered
on:
off:

show quiz panel with question " question "

" answer 1 "

" answer 2 "

correct answer 1 ▾

when correct

when incorrect

show choice panel with question " question "

when " answer 1 " selected

when " answer 2 " selected

PRO

set animation of my item ▾ to don't animate ▾

my item ▾ say " Hi! " for 2 seconds

my item ▾ think " Hm... " for 2 seconds

set text of my text item ▾ to " "

switch to camera my camera item ▾

Sound

BASIC

play sound my sound ▾

wait until finished false ▾

stop sound my sound ▾

spin my physics item ▾ forward ▾ with velocity 1

set physics blocks duration to 0.5 sec

Values

PRO

local ▾ velocity of my item ▾

local ▾ angular velocity of my item ▾

Properties

PRO

restrict my physics item ▾ movement ▾ to axis X on ▾ Y on ▾ Z on ▾

set my physics item ▾ static on ▾

set my physics item ▾ collisions with other items on ▾

set my physics item ▾ friction to 0

set my physics item ▾ weight to 1 kg

set my physics item ▾ bounciness to 0

set gravity pull to 0.5

set physics speed to 1

If

PRO

if

1

< ▾

2

if

1

< ▾

2

⚙

else

Other

BASIC

wait for

1

sec.

restart scene

PRO

run parallel

⚙

run separately

go to scene

my scene ▾

end CoSpace

my image ▾

set scene navigation

false ▾

blend color 1

color 2

ratio

0.5

" ABC "

create string with

" ABC "

⚙

" ABC "

x:

0

y:

0

z:

0

x ▾

of

x:

0

y:

0

z:

0

length of

my variable ▾

Variables

PRO

set variable

myVar

to

" "

set Project property

" key "

to

" value "

Project property

" key "

change

my variable ▾

by

1

my variable ▾

Lists

PRO

create list

⚙

create empty list

myList

create item Capsule ▾ at x: 0 y: 0 z: 0 with " Item name "

set name of my item ▾ to " Item name "

Get

BASIC

item my item ▾

group item my group ▾

PRO

camera my camera item ▾

path item my path item ▾

text item my text item ▾

text 3D item my text item ▾

video item my video item ▾

is video item my video item ▾ playing?

physics item my physics item ▾

get item " Item name "

name of my item ▾

create copy of my item ▾

parent of my item ▾

children count of my item ▾

child with index 0 of my item ▾

create item Capsule ▾ at x: 0 y: 0 z: 0 with " Item name "

when cube is hovered

on:

off:

run only once false ▾

when Top ▾ cube side is looked at

on:

off:

run only once false ▾

remove when cube clicked ▾ events from cube

when cube turned up ▾

run only once false ▾

Values

PRO

Top ▾ cube side

visible cube side

Rotation

PRO

set direction of my item ▾

to x: 0 y: 0 z: 0

turn my item ▾

to look at my item ▾

turn my item ▾

to look at x: 0 y: 0 z: 0

direction of my item ▾

when up ▾ key is pressed ▾

Collision

PRO

when my item ▾ collides with my item ▾

enter:

exit:

when my item ▾ collides with anotherItem

enter:

exit:

Web

PRO

when my item ▾ is clicked

show YouTube video " URL "

when my item ▾ is clicked

open link " URL "

Other

PRO

remove when item clicked ▾ event from my item ▾

Last updated: February 2025

Video

PRO

play video

my video item

wait until finished

false

stop video

my video item

pause video

my video item

Advanced

PRO

set

local

velocity of

my physics item

to

x:

0

y:

1

z:

0

set

local

angular velocity of

my physics item

to

x:

0

y:

1

z:

0

Functions

Create your own CoBlocks

PRO

return from function

return 1

add my item ▼ to my variable ▼

insert my item ▼ at index 0 to my variable ▼

delete item 0 from my variable ▼

replace item 0 of my variable ▼ with my item ▼

item 0 of my variable ▼

get item 0 of my variable ▼ and remove

index of my item ▼ in my variable ▼

my variable ▼ contains my item ▼ ?

Debug

PRO

// Comment

