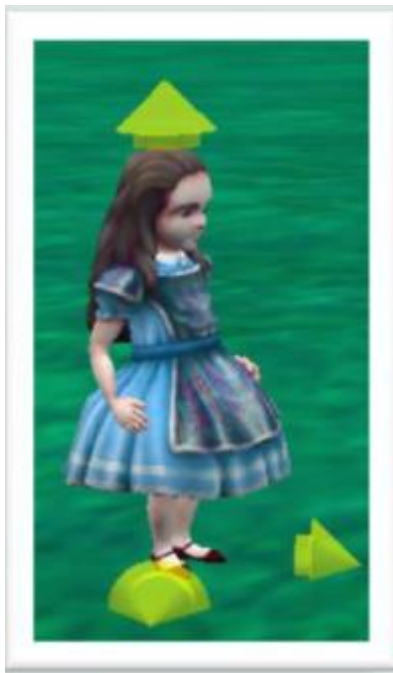


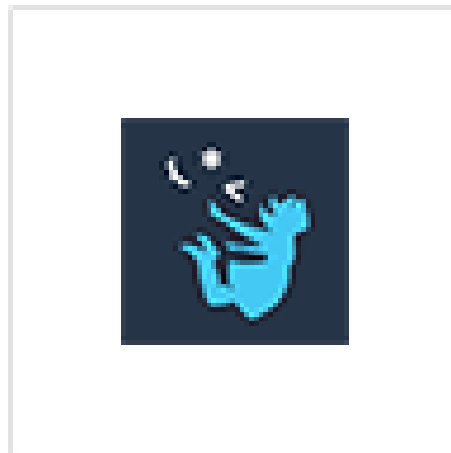


Loading...

version 3.4.0.0+build123



Program Alice za izradu 3D animacija



Alice 3.exe

www.alice.org

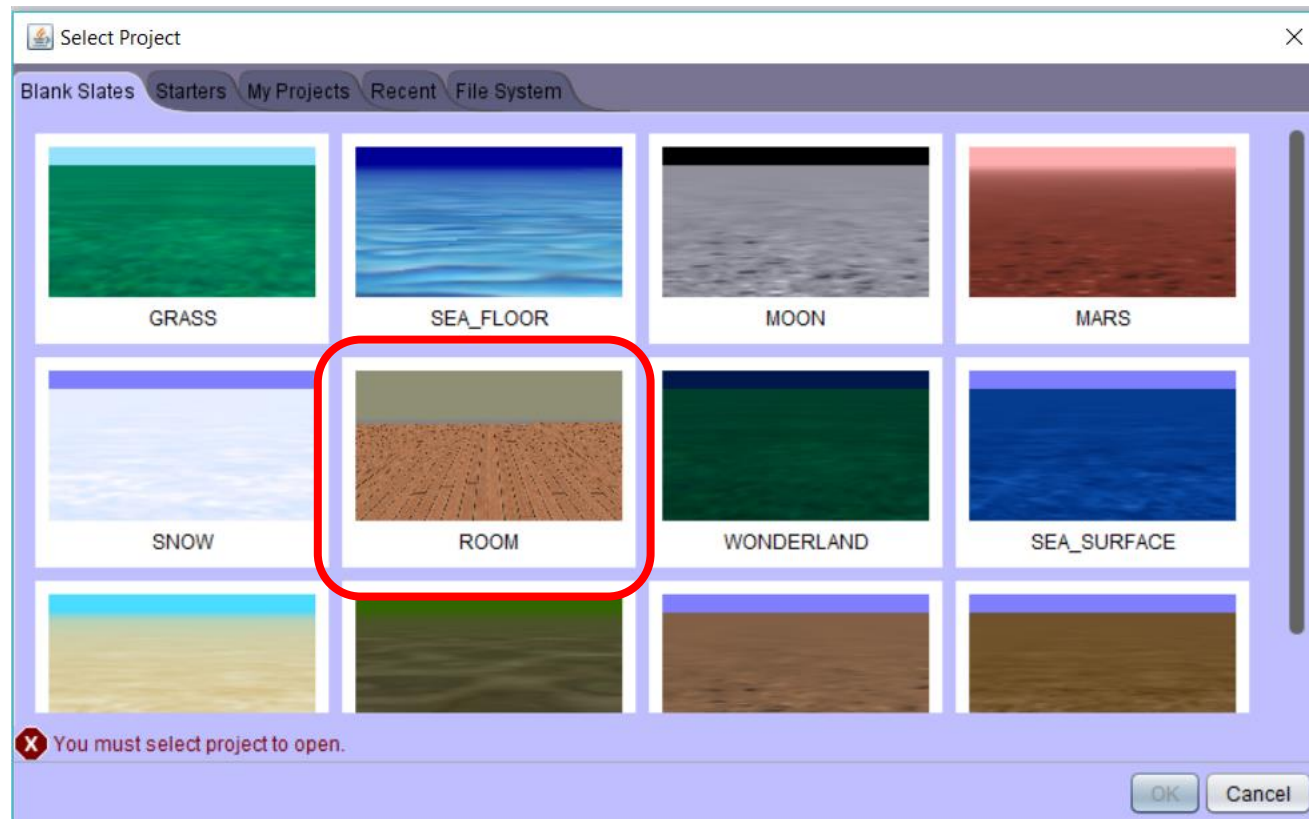
Pogledajmo primjer programa u Alice

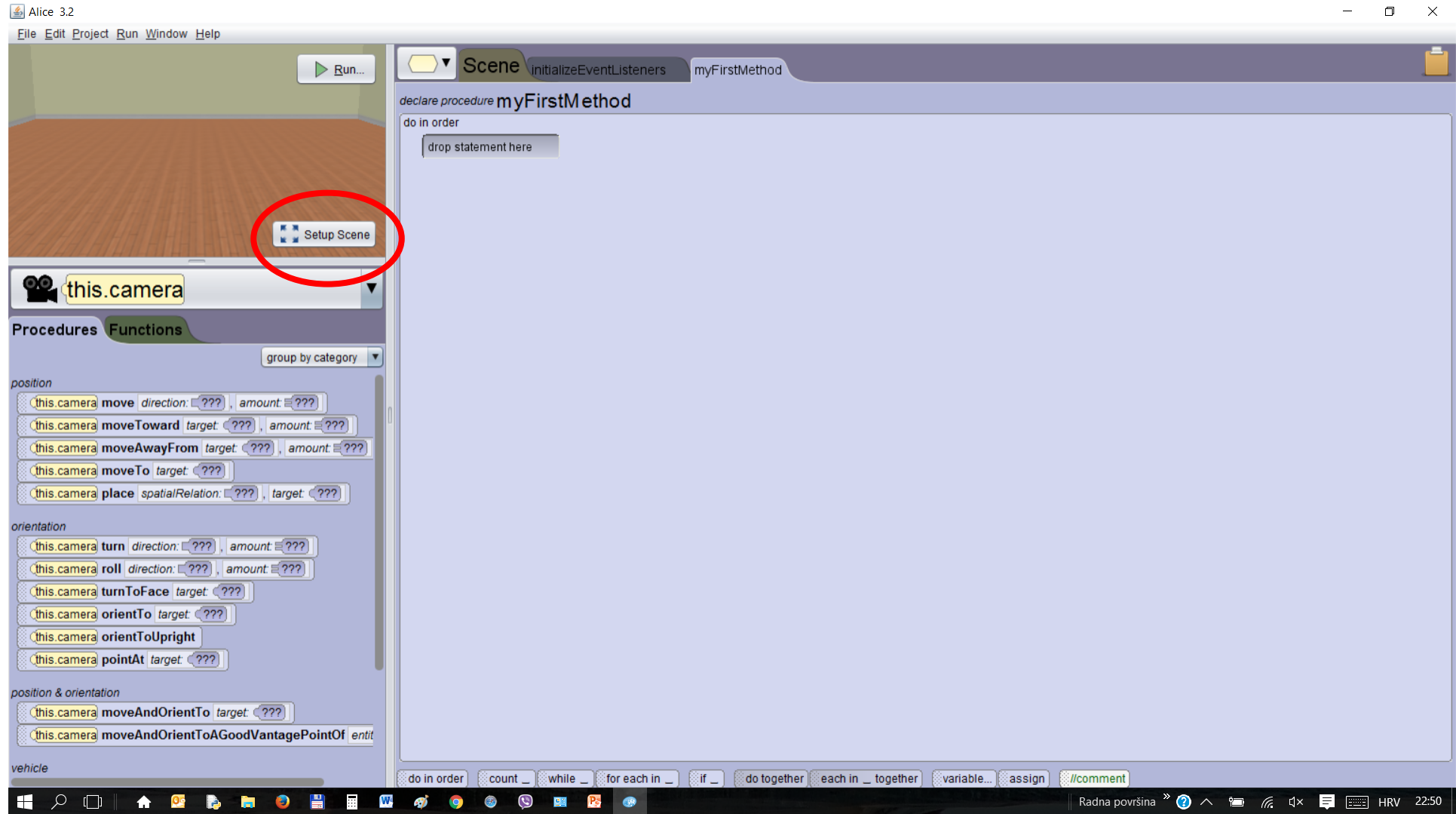


SortiranjeHRV.a3p

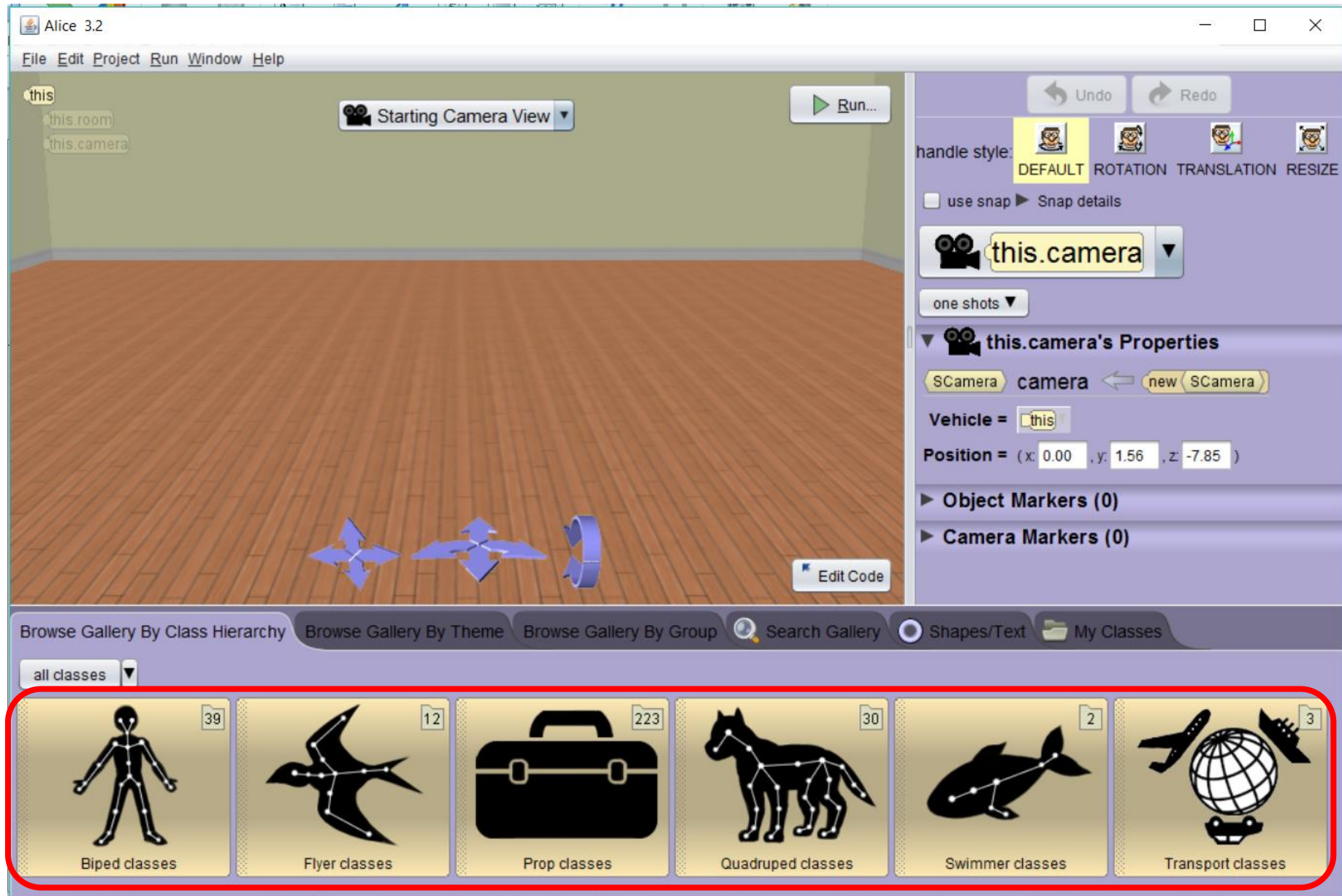
Namještanje i organizacija scene

Na početku rada odabiremo vrstu pozadine našeg projekta:





U scenu umećemo statične i dinamične objekte iz izbornika na dnu:



Umetanje objekata

Objekt možemo umetnuti na dva načina:

- 1. *dvoklikom*** (dolazi u centar scene i dajemo mu JEDINSTVENO ime)
- 2. *povlačenjem*** na mjesto na sceni (i davanjem JEDINSTVENOG imena)





Spremajte često!

Pogledi kamere:



Vuk se okreće i gleda u Alisu:



one shots procedure služe za
namještanje scene



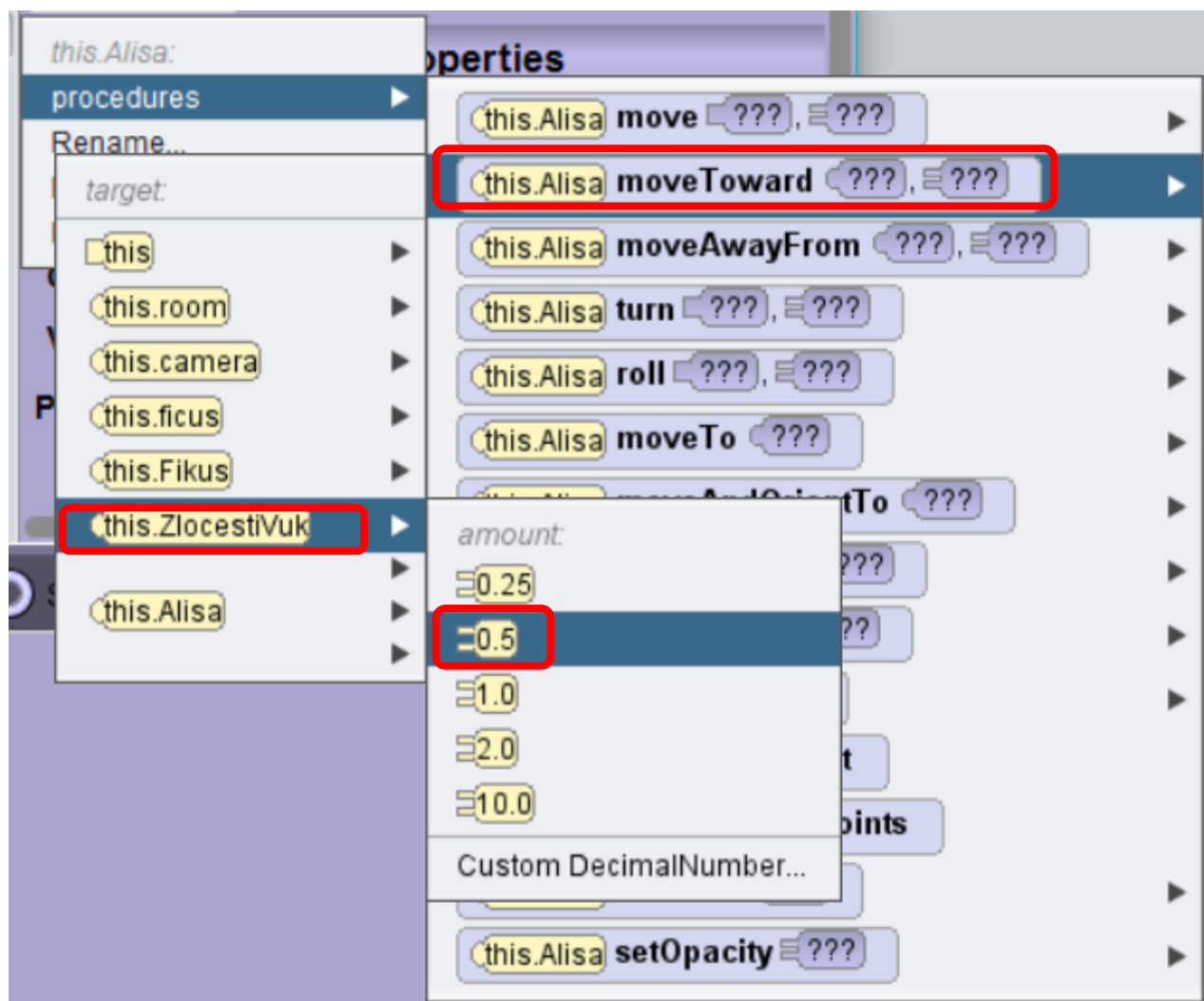


Okrenite Alisu prema vuku:



Približite Alisu pola koraka prema zločestom vuku:

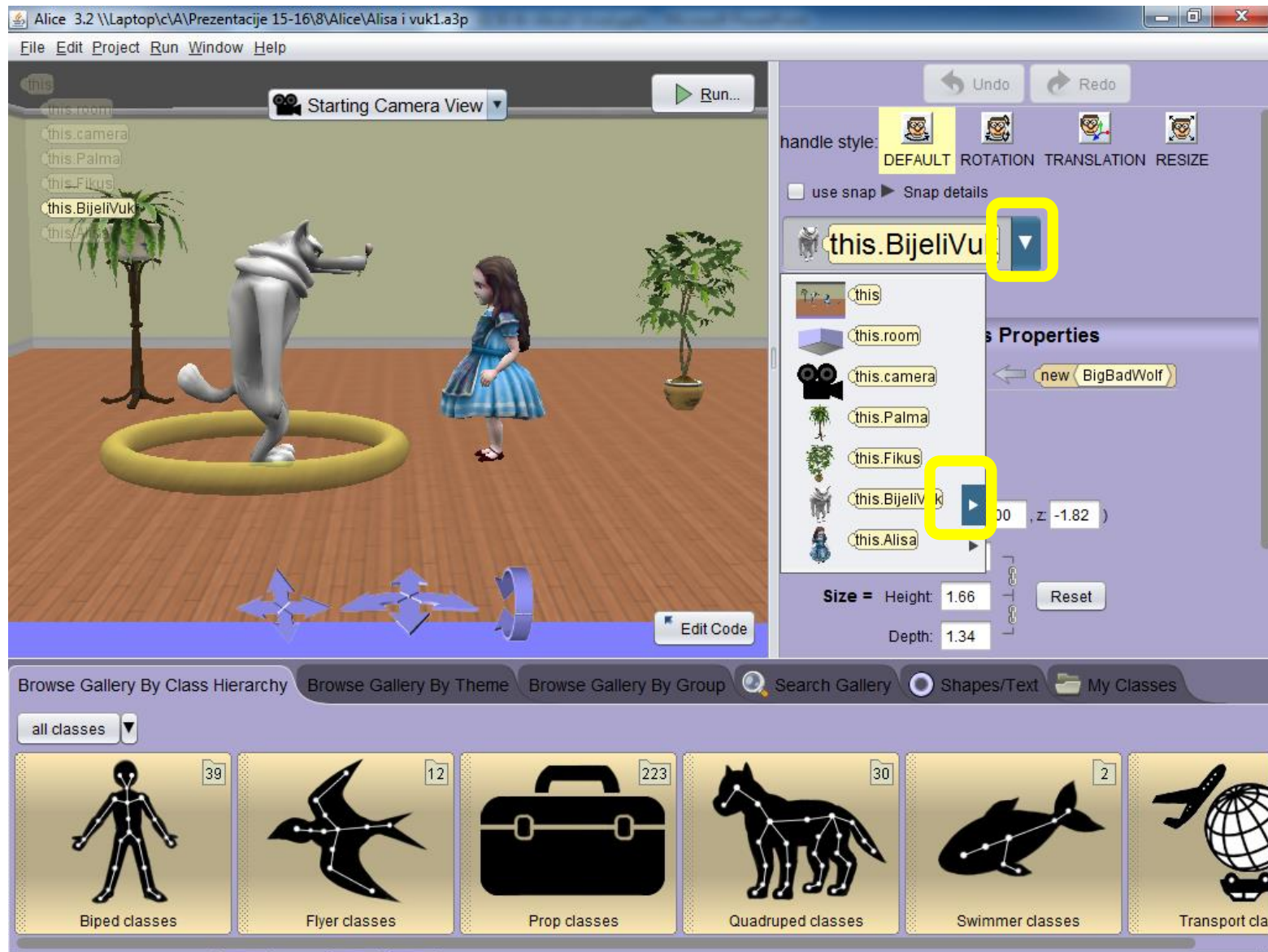

























Rukovanje:

getRightShoulder - turn left 0.125

Vuk okreće glavu prema nama:



SBiped Joints:

-  this.BijeliVuk getPelvis
-  this.BijeliVuk getSpineBase
-  this.BijeliVuk getNeck
-  this.BijeliVuk getHead
-  this.BijeliVuk getMouth
-  this.BijeliVuk getRightEye
-  this.BijeliVuk getLeftEye
-  this.BijeliVuk getLeftEyelid
-  this.BijeliVuk getRightEyelid
-  this.BijeliVuk getRightHip
-  this.BijeliVuk getRightKnee
-  this.BijeliVuk getRightAnkle
-  this.BijeliVuk getLeftHip
-  this.BijeliVuk getLeftKnee
-  this.BijeliVuk getLeftAnkle
-  this.BijeliVuk getRightClavicle
-  this.BijeliVuk getRightShoulder
-  this.BijeliVuk getRightElbow
-  this.BijeliVuk getRightWrist
-  this.BijeliVuk getRightMiddleFinger
-  this.BijeliVuk getLeftClavicle

Undo



ROTATION

ils

uk


s Prop

0.00 , z

pes/Text



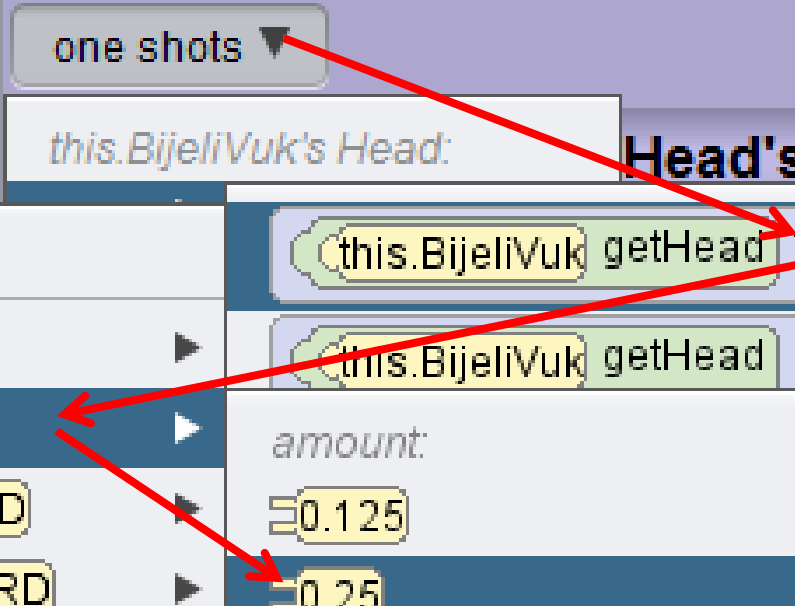
☐ use snap ▶ Snap details

 `this.BijeliVuk` getHead ▼

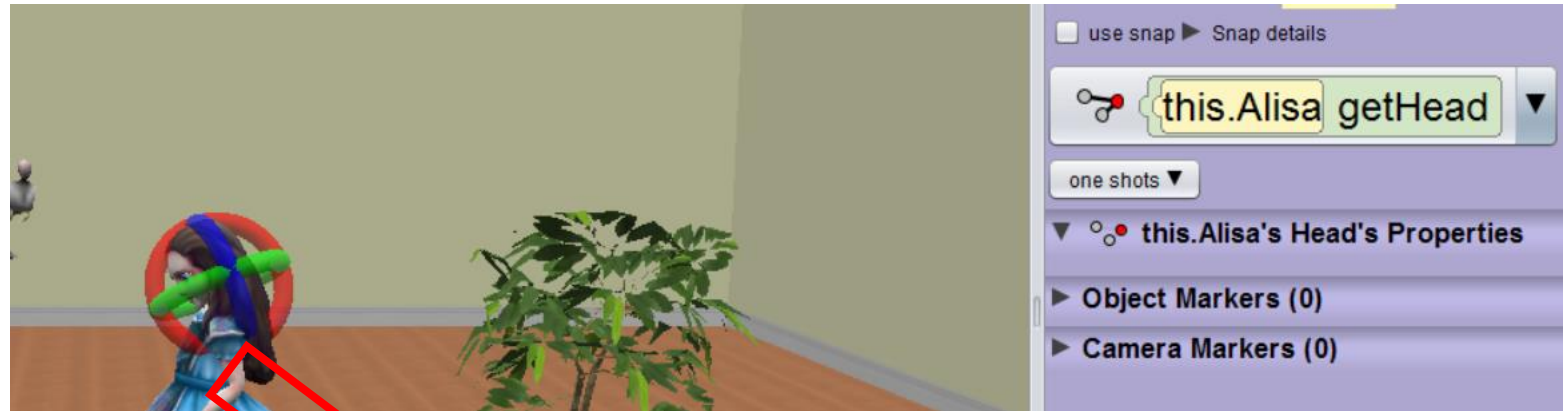
one shots ▼

this.BijeliVuk's Head: **Head's Properties**

direction:	amount:	Property
<input type="checkbox"/> LEFT	<input type="text" value="0.125"/>	<code>this.BijeliVuk</code> getHead turn <input type="text" value="???"/> , <input type="text" value="???"/>
<input checked="" type="checkbox"/> RIGHT	<input type="text" value="0.25"/>	<code>this.BijeliVuk</code> getHead roll <input type="text" value="???"/> , <input type="text" value="???"/>
<input type="checkbox"/> FORWARD	<input type="text" value="0.5"/>	turnToFace <input type="text" value="???"/>
<input type="checkbox"/> BACKWARD	<input type="text" value="0.5"/>	pointAt <input type="text" value="???"/>
		orientToUpright



Dijelovi tijela se mogu pomicati
u početni položaj i pomoću miša
i krugova za rotaciju:



move – up down left right forward backward – **objekt se POKREĆE**

turn – left right forward backward – **objekt ne mijenja mjesto (stajalište) – okreće se i naklanja**



CRVENO

turn

forward - backward



ZELENO

turn

left - right



PLAVO

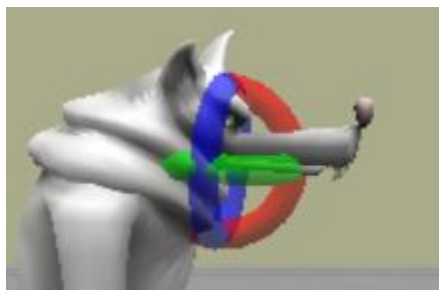
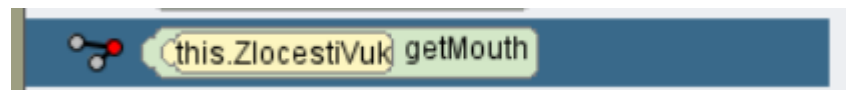
roll

left - right



roll – left right – **objekt ne mijenja mjesto ni usmjerenje**

Vuku se mogu otvoriti usta:



turn forward 0.125



Zadaci:

1. Postavite dvije osobe na scenu (odaberite odjeću, izraz lica, boju i frizuru kose)
2. Okrenite ih jednog prema drugome
3. Mogućnost naredbi (move, turn, roll)
4. Odabir ramena (shoulder – dizanje ruke)
5. Odabir noge (hip – turn backward 0.125)
6. Od svake vrste po dva objekta – na scenu

Procedure i funkcije

(metode)

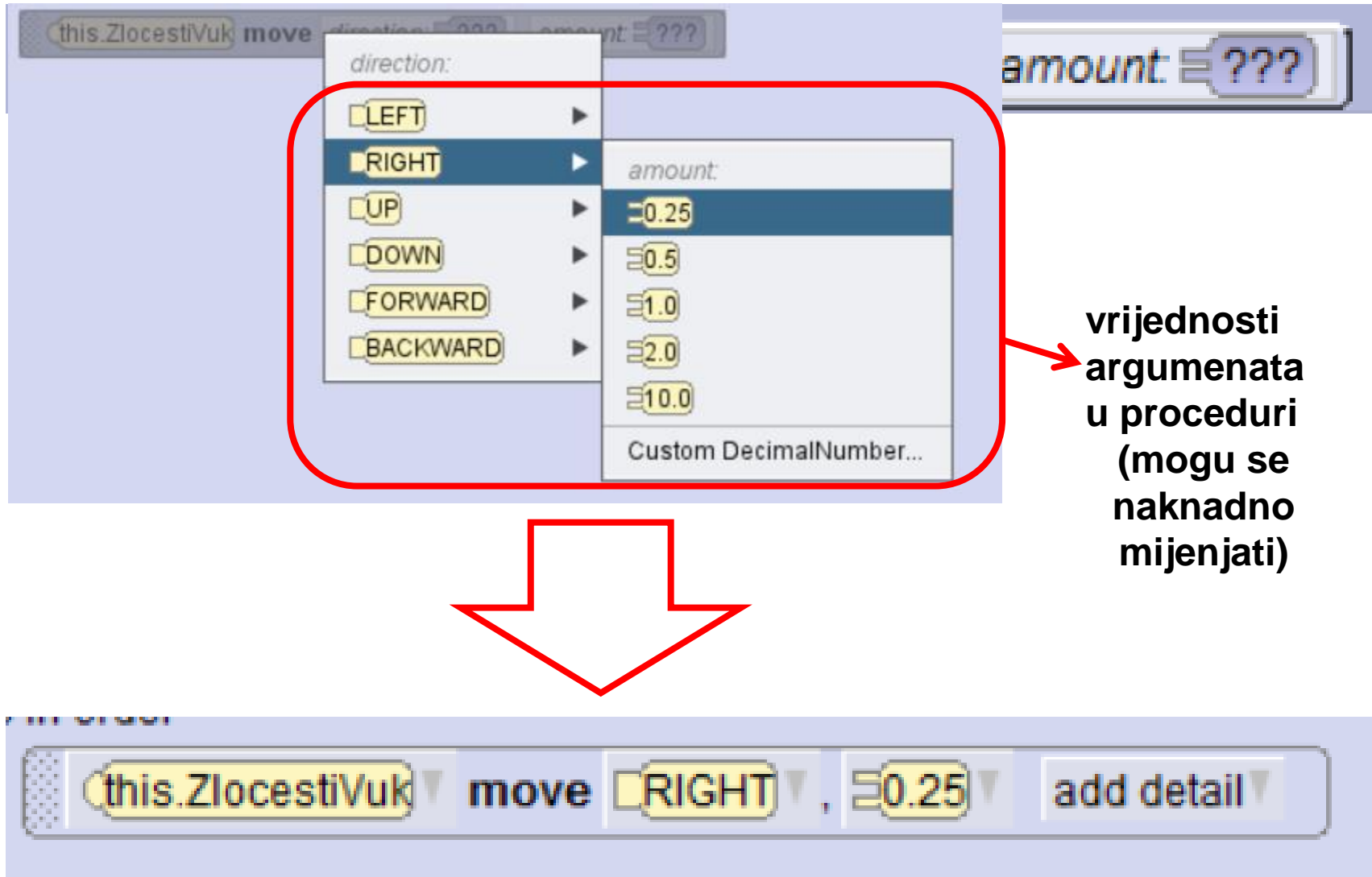
Procedura je dio programskog koda koji definira kako bi se objekt trebao ponašati.

Funkcija je dio programskog koda koji nadopunjava odabranu proceduru (namješta i određuje vrijednost).

Procedura



**Nakon povlačenja procedure u kod editor,
pojavljuje se izbornik vrijednosti
argumenata u proceduri:**



Objekt (ili njegov dio) možemo micati u 6 smjerova:

- gore (up)
- dolje (down)
- lijevo (left)
- desno (right)
- naprijed (forward)
- nazad (backward)



Procedure	Description
Move	Pomiče objekt u jednom od 6 mogućih smjerova.
Move Toward	Pomiče objekt prema drugom objektu.
Move Away From	Odmiče objekt od drugog objekta.
Move To	Pomiče objekt iz njegove trenutne pozicije u poziciju ciljnog (navedenog) objekta.
Move and Orient To	Pomiče objekt iz njegove trenutne pozicije u poziciju navedenog objekta i namješta orijentaciju objekta istu kao ciljnog (navedenog).
Delay	Zaustavlja pomicanje objekta za određen broj sekundi. Kašnjenje se može upotrijebiti za usporavanje animacije.
Say	Izrada oblačića s tekstom kojeg objekt izgovara.

Izrada procedura

Procedura je dio programskog koda koji definira kako bi se objekt trebao ponašati.

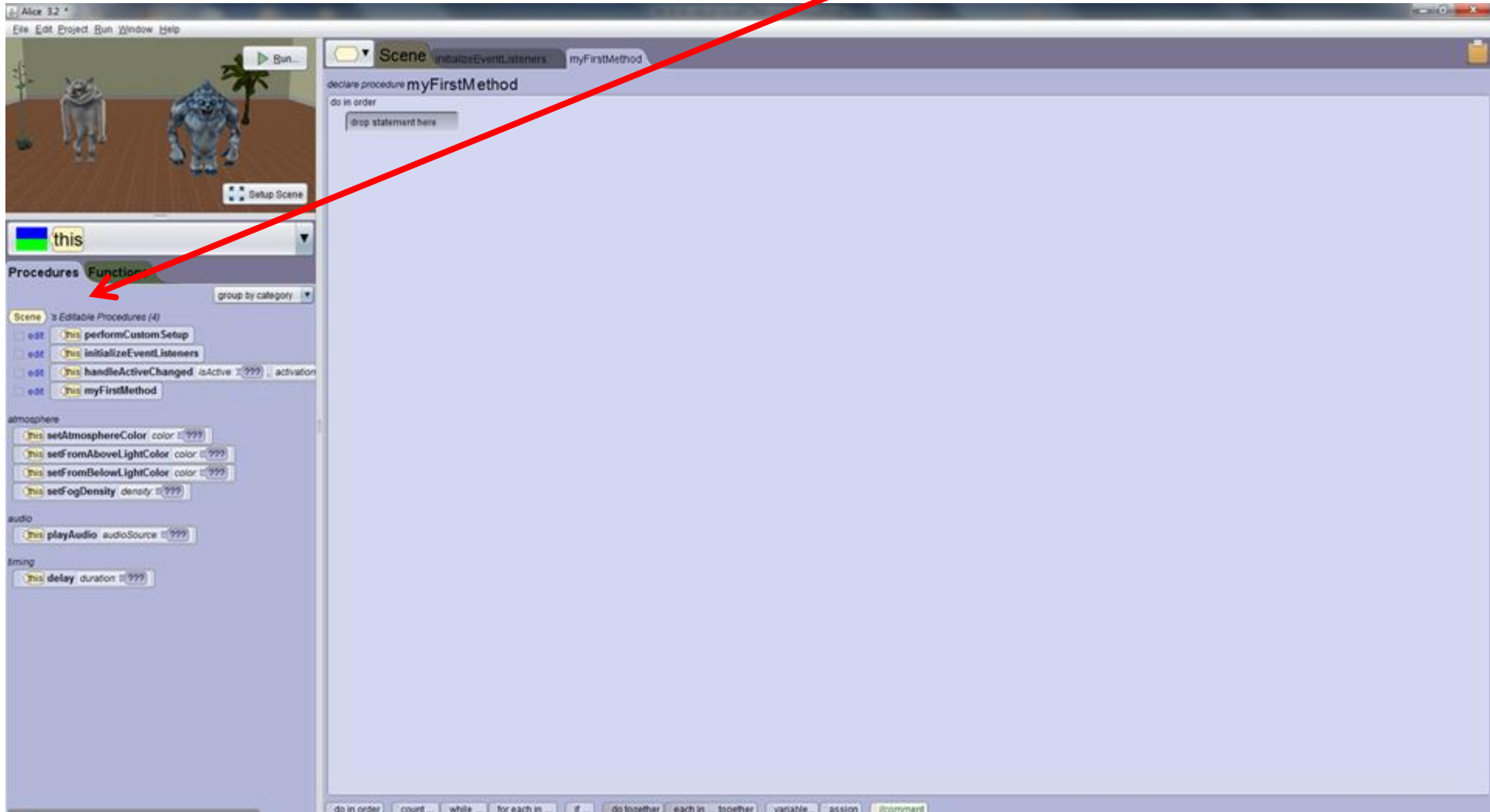
Do sada smo namještali scenu, a sad slijedi programiranje.

Pokrenite Alice i organizirajte scenu:



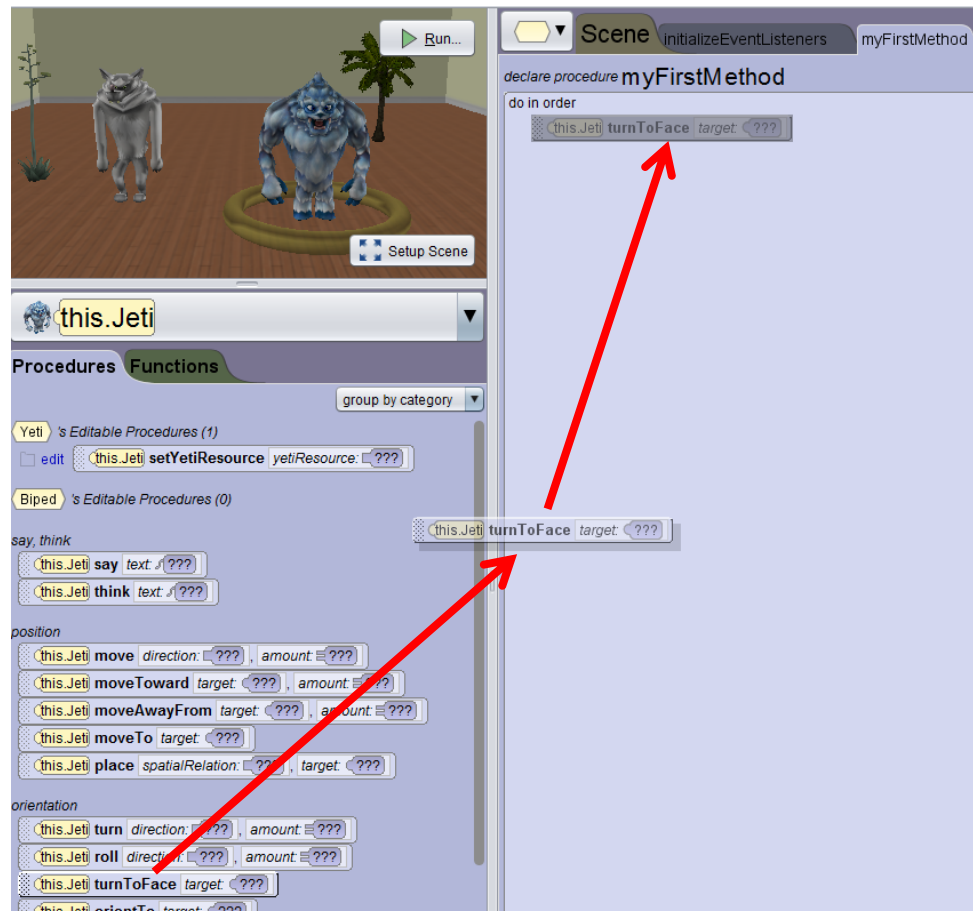
Klikom na **Edit Code** dolazimo u prostor za pisanje programa (pokretanje likova).

U ovom prostoru koristimo gotove procedure za svaki objekt pojedinačno.
Označimo objekt na koji će se odnositi i odaberemo proceduru:



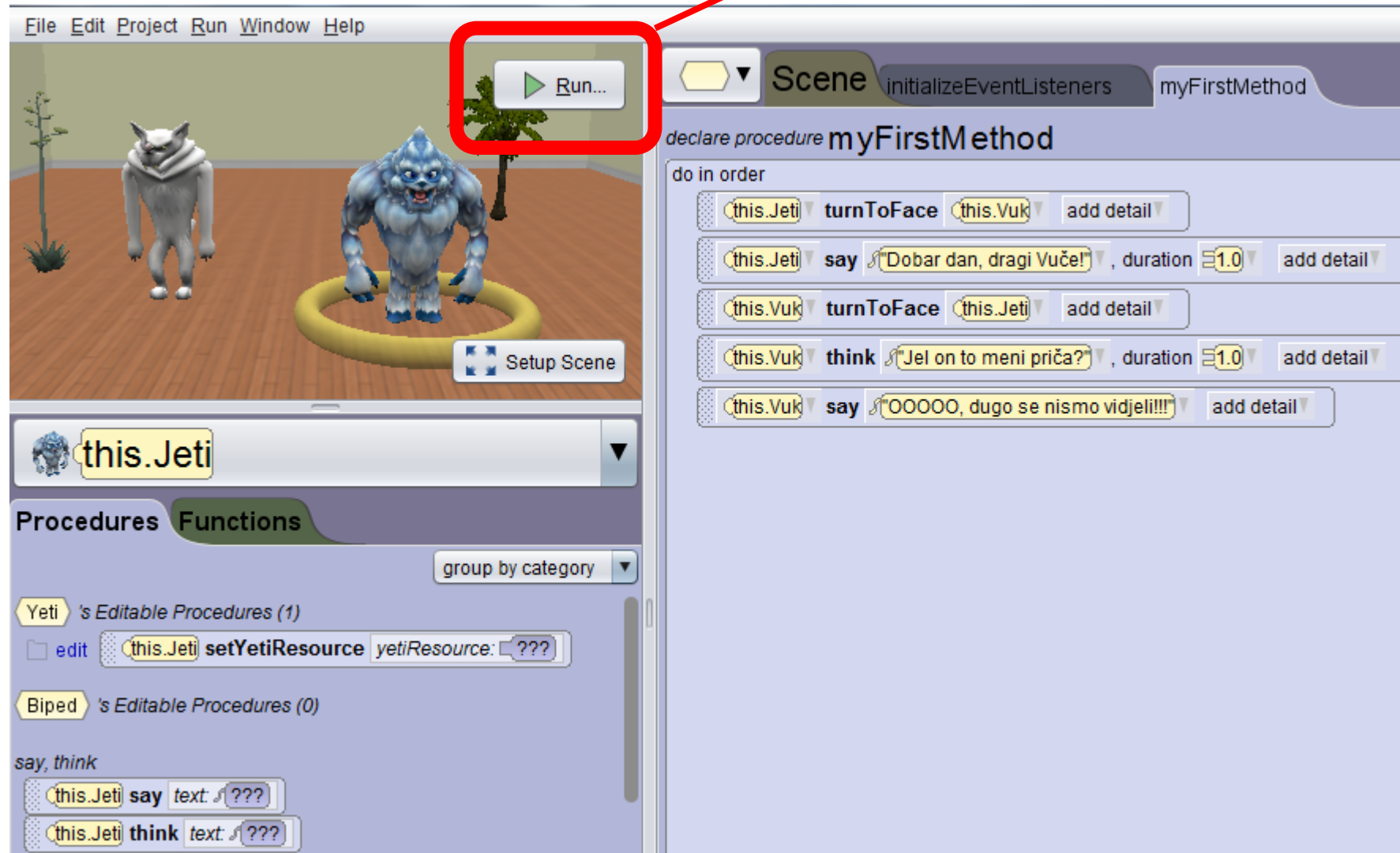


Procedure se odabiru povlačenjem u desni dio ekrana:



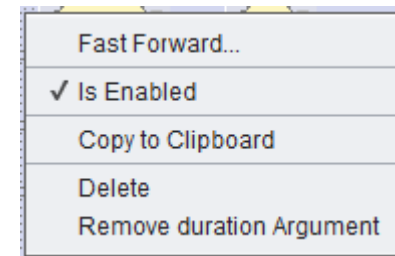
Vuk i Jeti pričaju:

ISPROBAJTE!



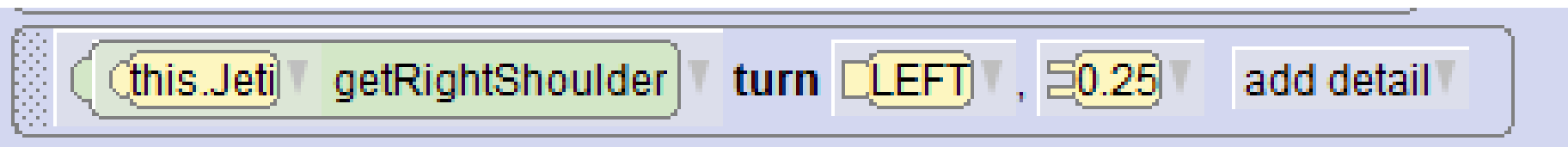
Tipkom
Run 
pokrećemo proceduru.

Desnim klikom maknemo kvačicu
ispred
Is Enabled
pa se taj redak ne izvršava!



Vuk i Jeti mašu rukama:





Kopiranjem i lijepljenjem dovršite program:

Kopiranje:
Ctrl+povlačenje ili
desni klik

do in order

- `this.yeti` **turnToFace** `this.bigBadWolf` add detail
- `this.yeti` **say** "Dobar dan, dragi Vuče!" , duration 1.5 , bubbleFillColor YELLOW , fontColor WHITE add detail
- `this.bigBadWolf` **turnToFace** `this.yeti` add detail
- `this.bigBadWolf` **think** "Jel' to on meni priča?" , duration 1.0 add detail
- `this.bigBadWolf` **say** "Oooooooooo, dugo se nismo vidjeli!!!" , bubbleFillColor YELLOW add detail
- `this.yeti` **getRightShoulder** **turn** LEFT , 0.25 add detail
- `this.yeti` **say** "Hi!" add detail
- `this.bigBadWolf` **getRightShoulder** **turn** LEFT , 0.25 add detail
- `this.bigBadWolf` **say** "Hi!" add detail

Na kraju im spustite ruke:

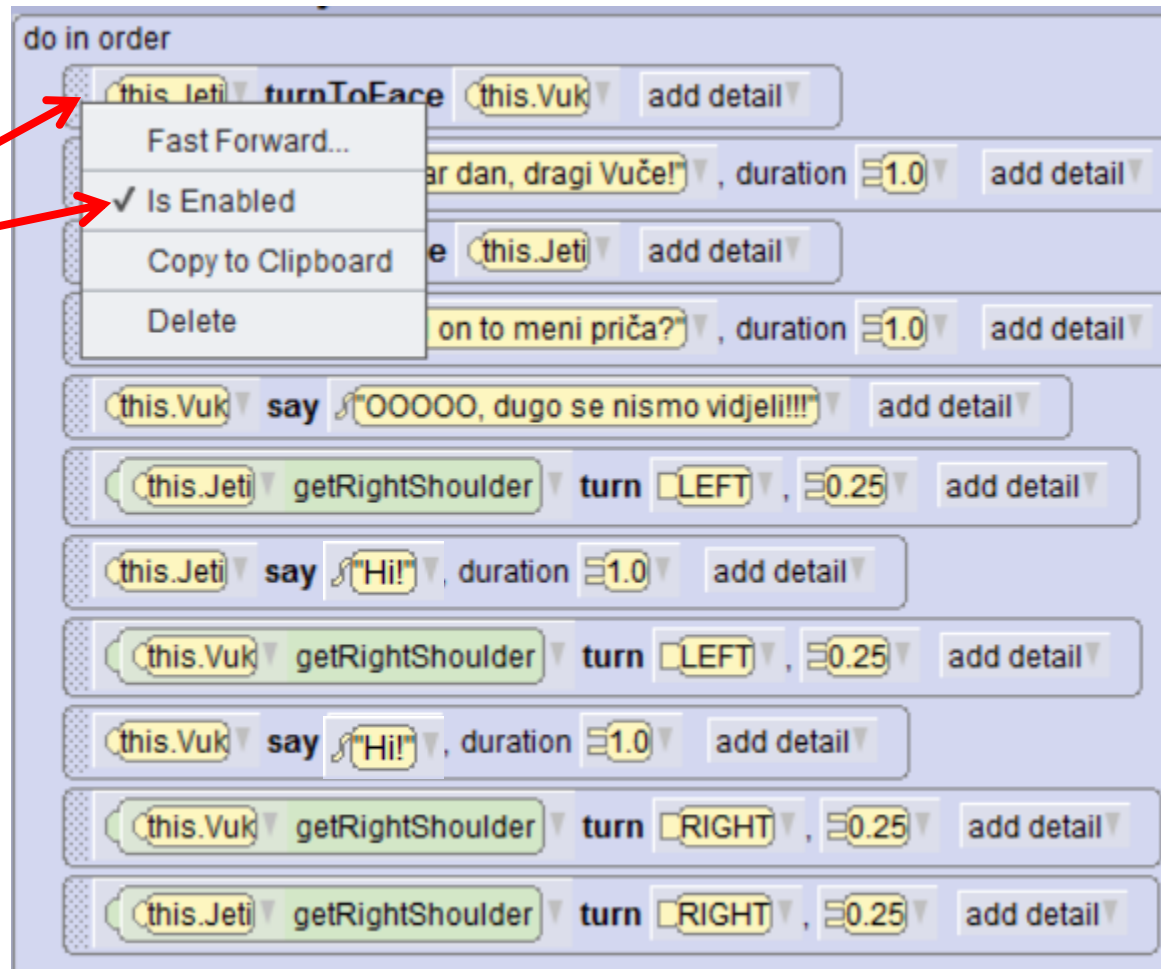
declare procedure **myFirstMethod**

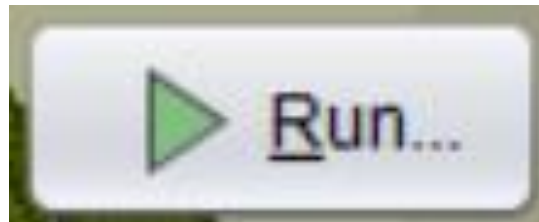
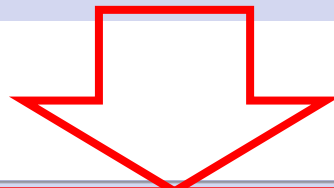
do in order

- this.yeti** **turnToFace** **this.bigBadWolf** add detail
- this.yeti** **say** "Dobar dan, dragi Vuče!", duration 1.5, bubbleFillColor YELLOW, fontColor WHITE add detail
- this.bigBadWolf** **turnToFace** **this.yeti** add detail
- this.bigBadWolf** **think** "Jel' to on meni priča?", duration 1.0 add detail
- this.bigBadWolf** **say** "Oooooooooo, dugo se nismo vidjeli!!!", bubbleFillColor YELLOW add detail
- this.yeti** **getRightShoulder** **turn** LEFT, 0.25 add detail
- this.yeti** **say** "Hi!" add detail
- this.bigBadWolf** **getRightShoulder** **turn** LEFT, 0.25 add detail
- this.bigBadWolf** **say** "Hi!" add detail
- this.yeti** **getRightShoulder** **turn** RIGHT, 0.25 add detail
- this.bigBadWolf** **getRightShoulder** **turn** RIGHT, 0.25 add detail

Pojedini dijelovi se mogu trenutno i onemogućiti:

desnim
klikom





declare procedure myFirstMethod

do in order

do together

this.yeti turnToFace this.bigBadWolf add detail

this.yeti say "Dobar dan, dragi Vuče!" , duration 1.5 , bubbleFillColor YELLOW , fontColor WHITE add detail

this.bigBadWolf turnToFace this.yeti add detail

this.bigBadWolf think "Jel' to on meni priča?" , duration 1.0 add detail

this.bigBadWolf say "Oooooooooo, dugo se nismo vidjeli!!!" , bubbleFillColor YELLOW add detail

do together

this.yeti getRightShoulder turn LEFT , 0.25 add detail

this.yeti say "Hi!" add detail

do together

this.bigBadWolf getRightShoulder turn LEFT , 0.25 add detail

this.bigBadWolf say "Hi!" add detail

do together

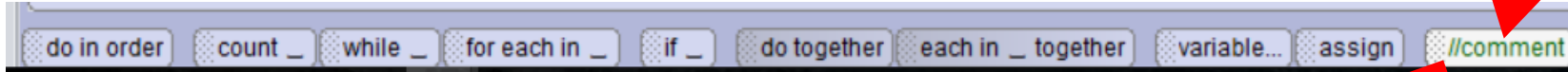
this.yeti getRightShoulder turn RIGHT , 0.25 add detail

this.bigBadWolf getRightShoulder turn RIGHT , 0.25 add detail

Umetanje komentara



Za opis programa možemo koristiti komentare koji opisuju što u programu slijedi



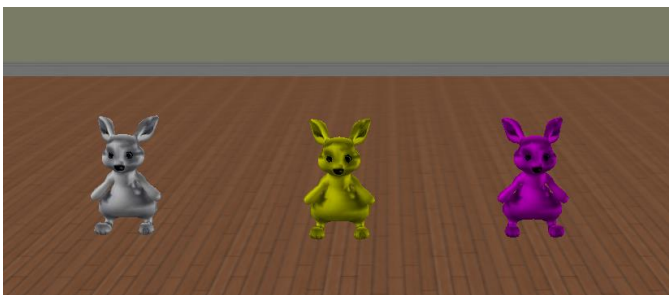
umećemo povlačenjem



Komentari ne utječu na rad programa i mogu se umetnuti u bilo koje mjesto u programu!

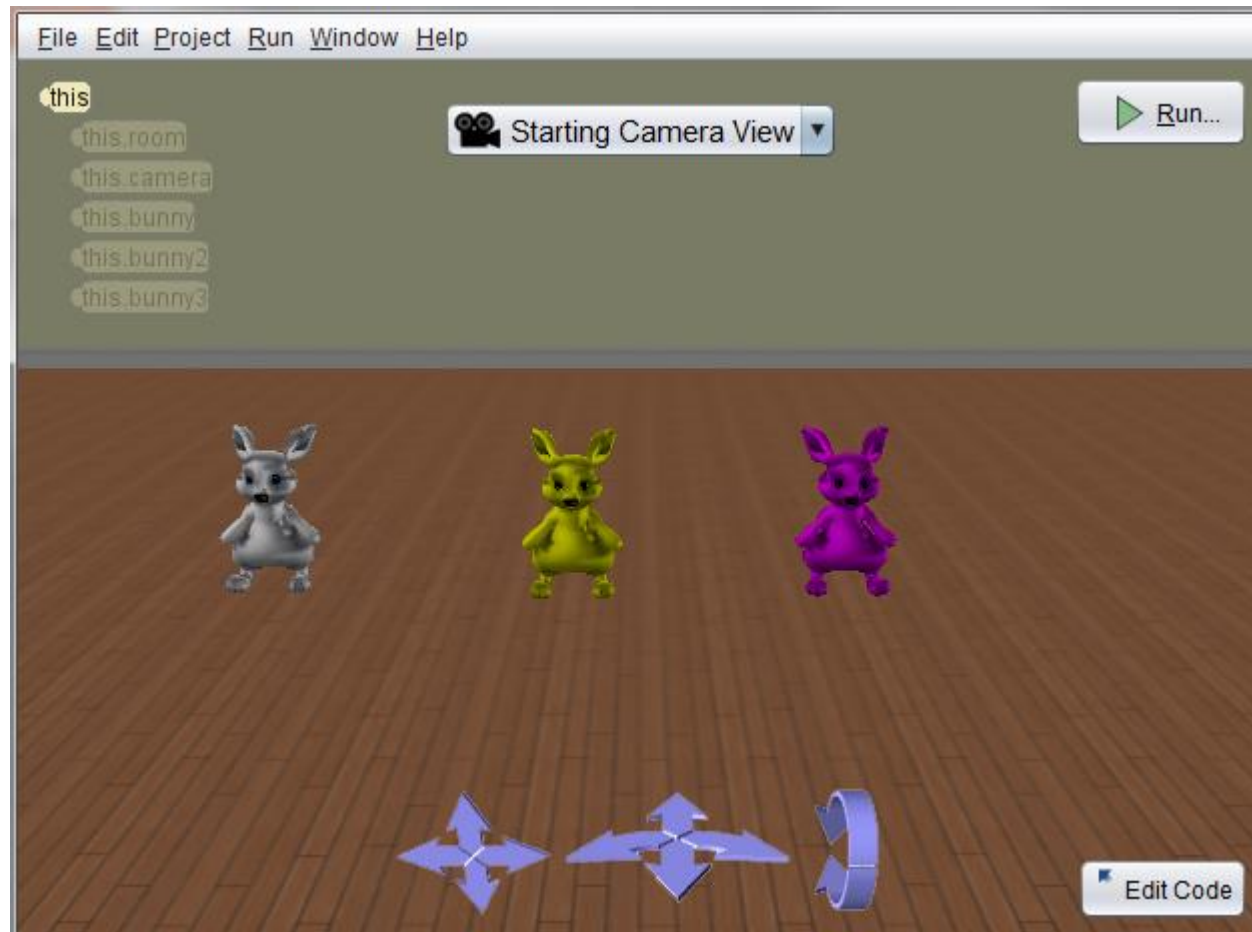
Namjestite scenu sa svoja
odabrana dva lika i dva stabla.

Neka se likovi okrenu jedan
prema drugome, pruže ruke kao
da se rukuju (početnu scenu
namjestite tako da su blizu) i
neka nešto kažu.

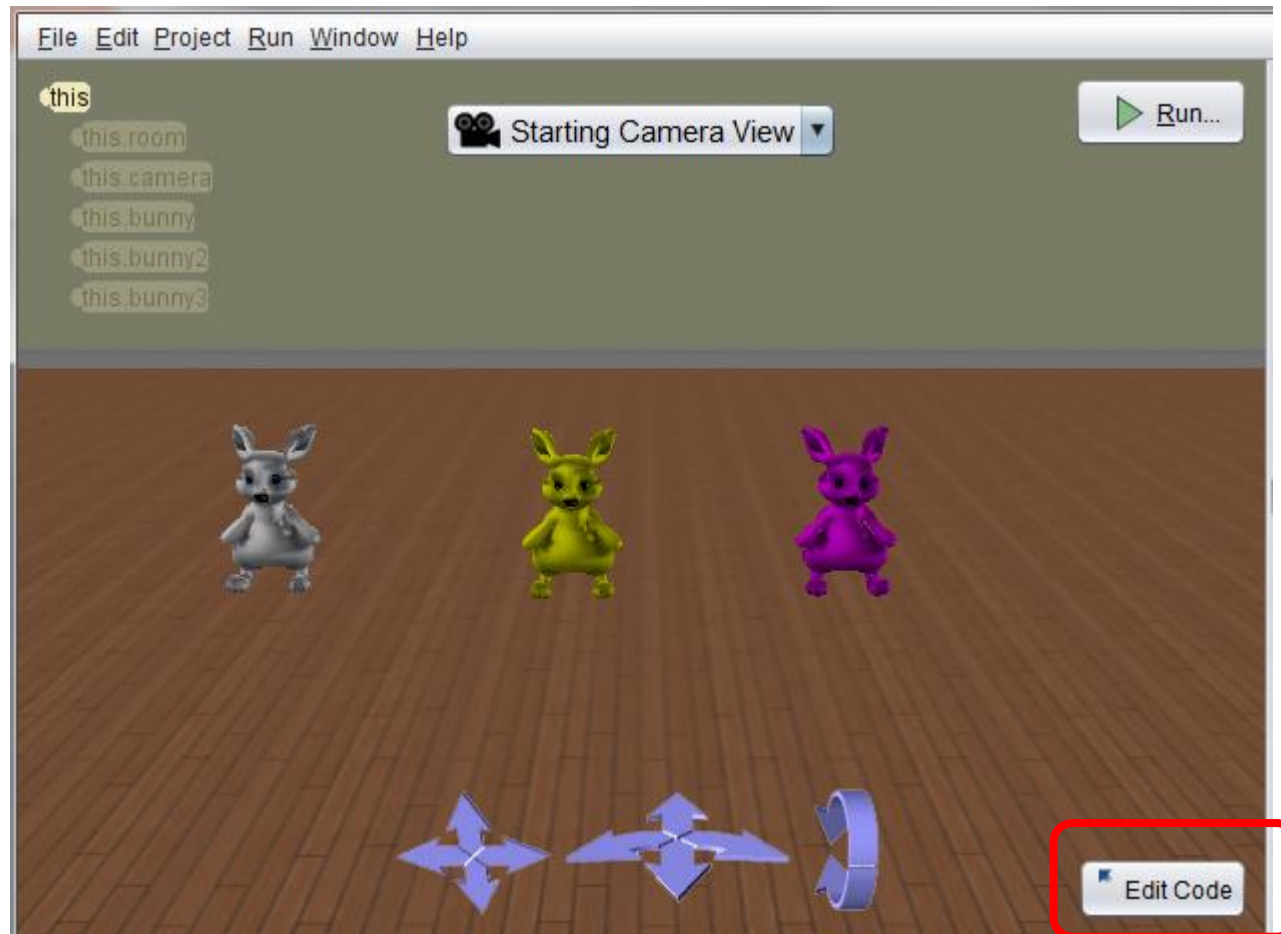


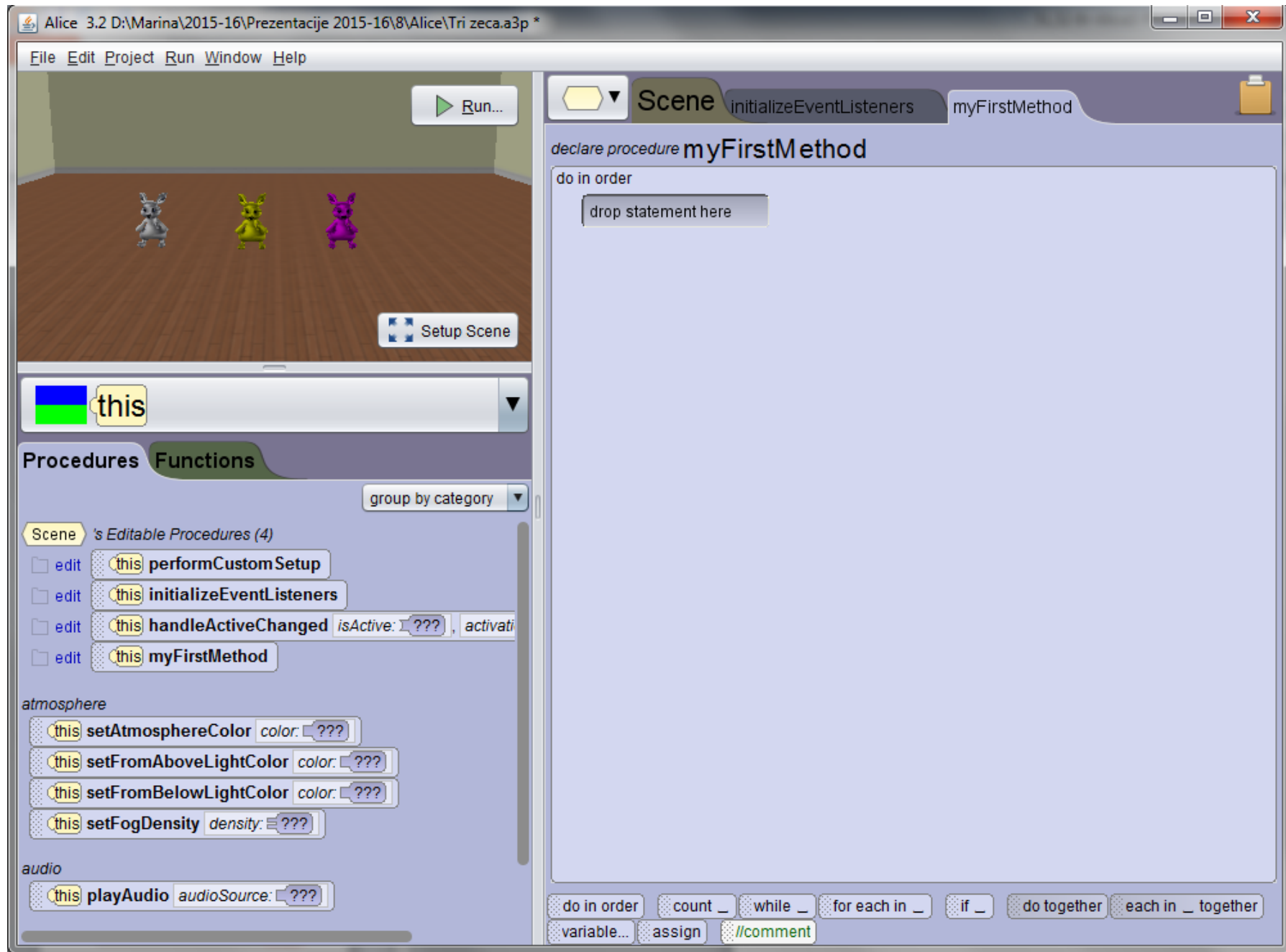
Tri zečiča skaču

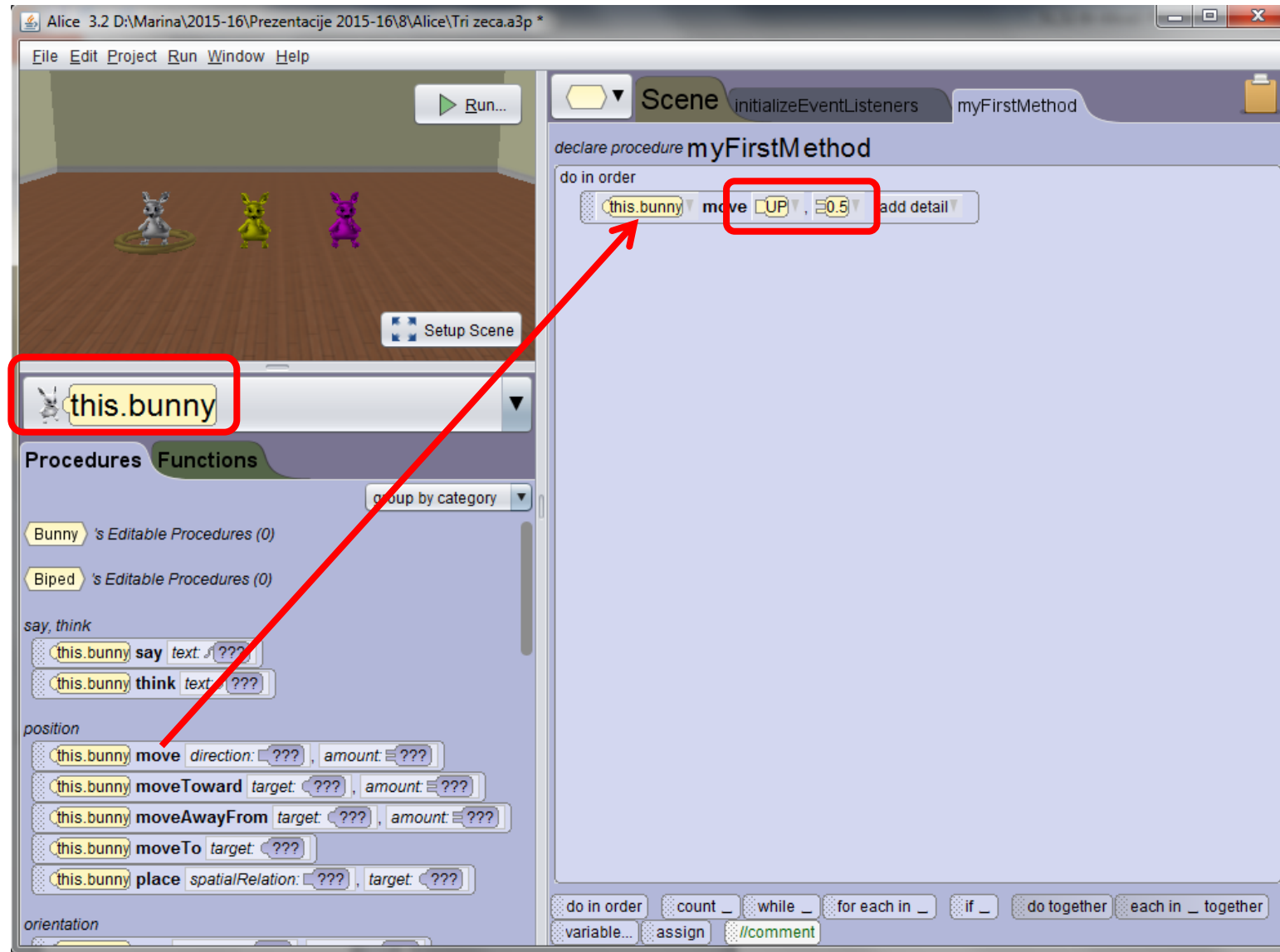
Organizirajte scenu

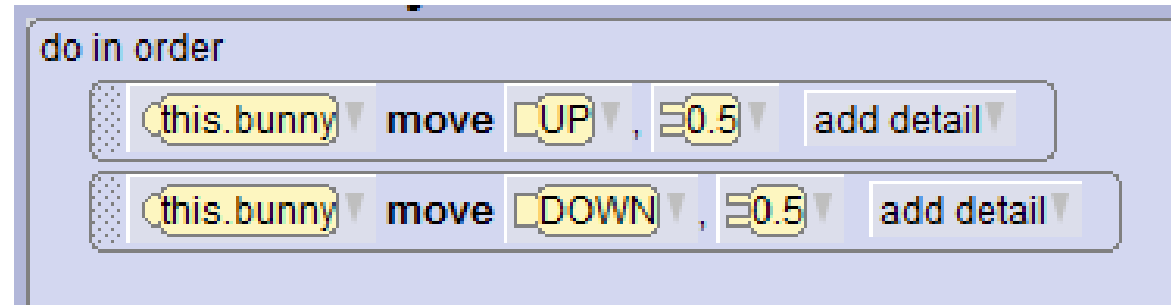


Napišimo programski kod

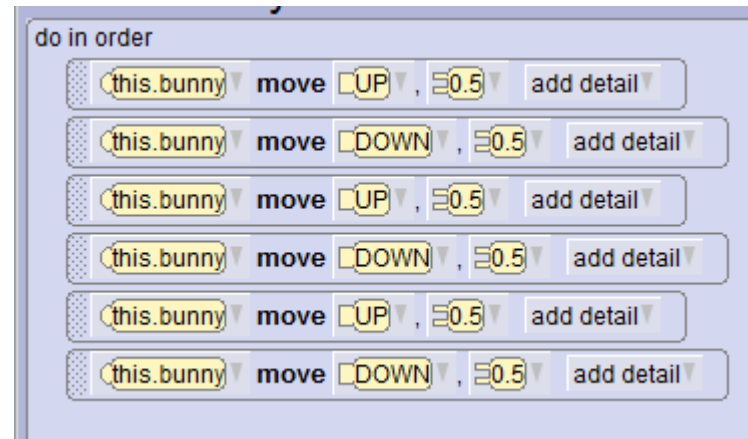




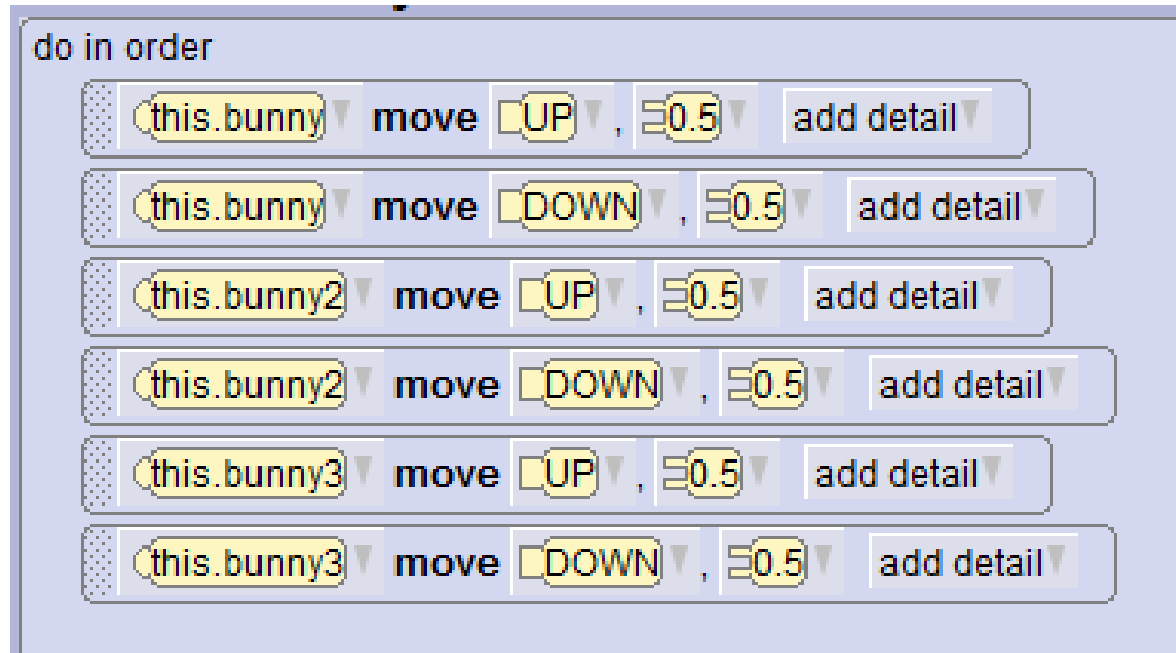




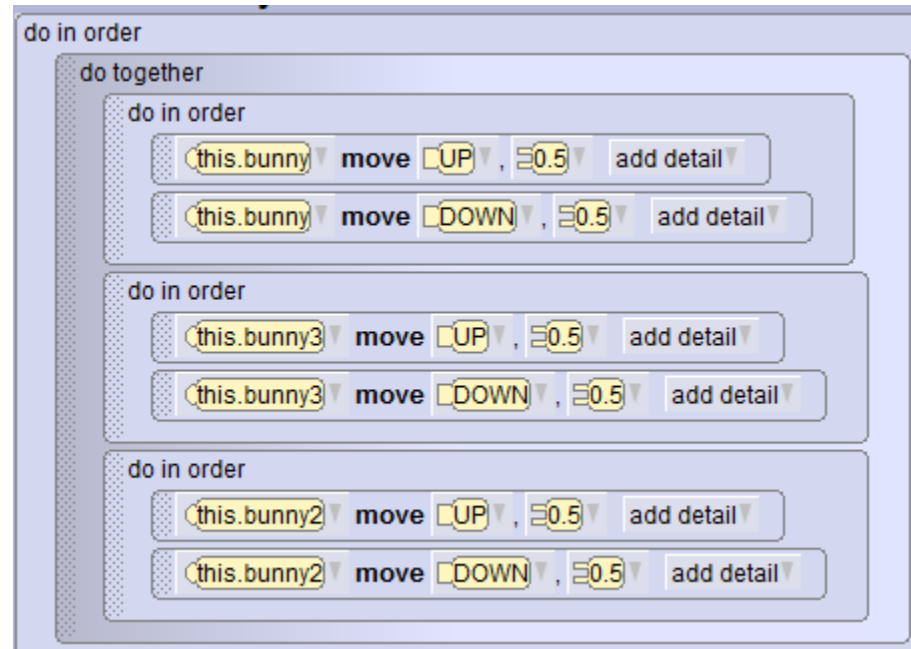
Kopirajmo (Ctrl+povlačenje):



Promijenimo i pokrenimo



Pokušajte promijeniti u



do in order

count up to 3

do together

do in order

this.Zec1 move UP, 0.5, duration 0.4, animationStyle BEGIN_ABRUPTLY_AND_END_GENTLY add detail

this.Zec1 turn LEFT, 1.0 add detail

this.Zec1 move DOWN, 0.5, duration 0.4, animationStyle BEGIN_ABRUPTLY_AND_END_GENTLY add detail

do in order

this.Zec2 move UP, 0.5, duration 0.4, animationStyle BEGIN_ABRUPTLY_AND_END_GENTLY add detail

this.Zec2 turn RIGHT, 1.0 add detail

this.Zec2 move DOWN, 0.5, duration 0.4, animationStyle BEGIN_ABRUPTLY_AND_END_GENTLY add detail

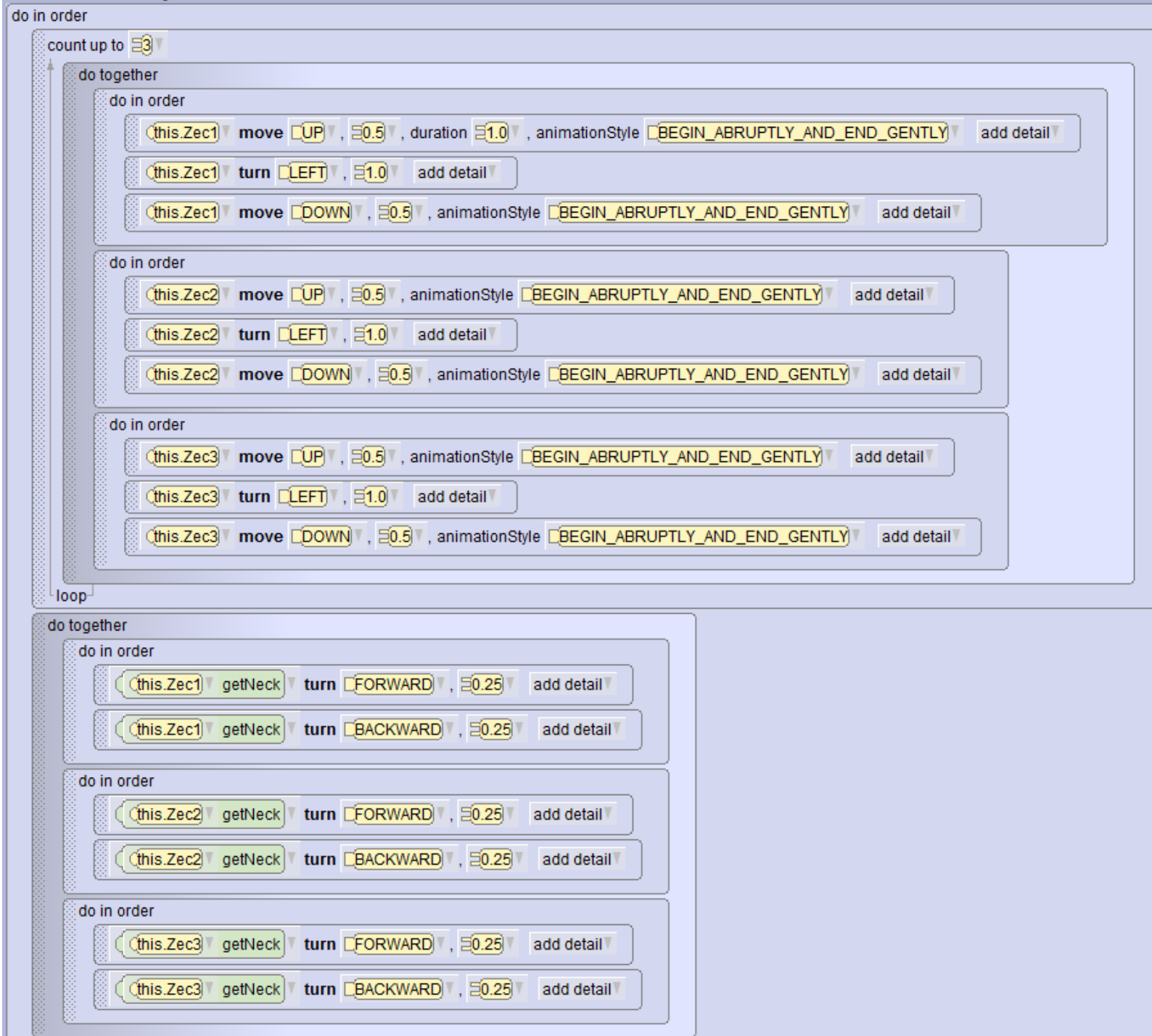
do in order

this.Zec3 move UP, 0.5, duration 0.4, animationStyle BEGIN_ABRUPTLY_AND_END_GENTLY add detail

this.Zec3 turn LEFT, 1.0 add detail

this.Zec3 move DOWN, 0.5, duration 0.4, animationStyle BEGIN_ABRUPTLY_AND_END_GENTLY add detail

loop



Ponovite današnji zadatak s tri
pande:

*skoče u zrak, okrenu se oko
sebe i vrate se na pod*



Vještica i Troll

Odabiremo pozadinu i namještamo scenu:

Odaberemo **SWAMP** pozadinu.

I objekte:

- Troll
 - Witch
 - 2 Pixies
 - Cauldron
 - Spell book
 - Potion
 - Magic stone
-

Namjestimo scenu



- Troll
- Witch
- 2 Pixies
- Cauldron
- Spell book
- Potion
- Magic stone

declare procedure myFirstMethod

do in order

do together

this.witch say "Čiribu čiriba!", duration 1.0 add detail

do in order

this.witch getMouth turn FORWARD, 0.25 add detail

this.witch getMouth turn BACKWARD, 0.25 add detail

do together

this.witch say "TROL RASTE!", duration 1.0 add detail

do in order

this.witch getMouth turn FORWARD, 0.25 add detail

this.witch getMouth turn BACKWARD, 0.25 add detail

do together

this.troll say "O, NE!" add detail

do together

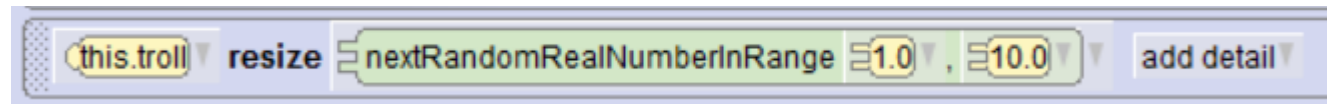
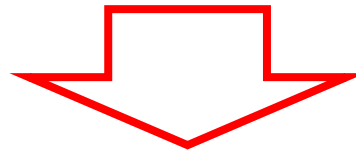
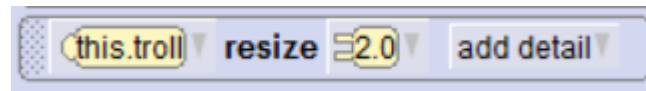
this.troll getLeftShoulder roll LEFT, 0.25 add detail

this.troll getRightShoulder roll RIGHT, 0.25 add detail

this.troll resize 2.0 add detail

Promjenimo u random povećavanje Trola

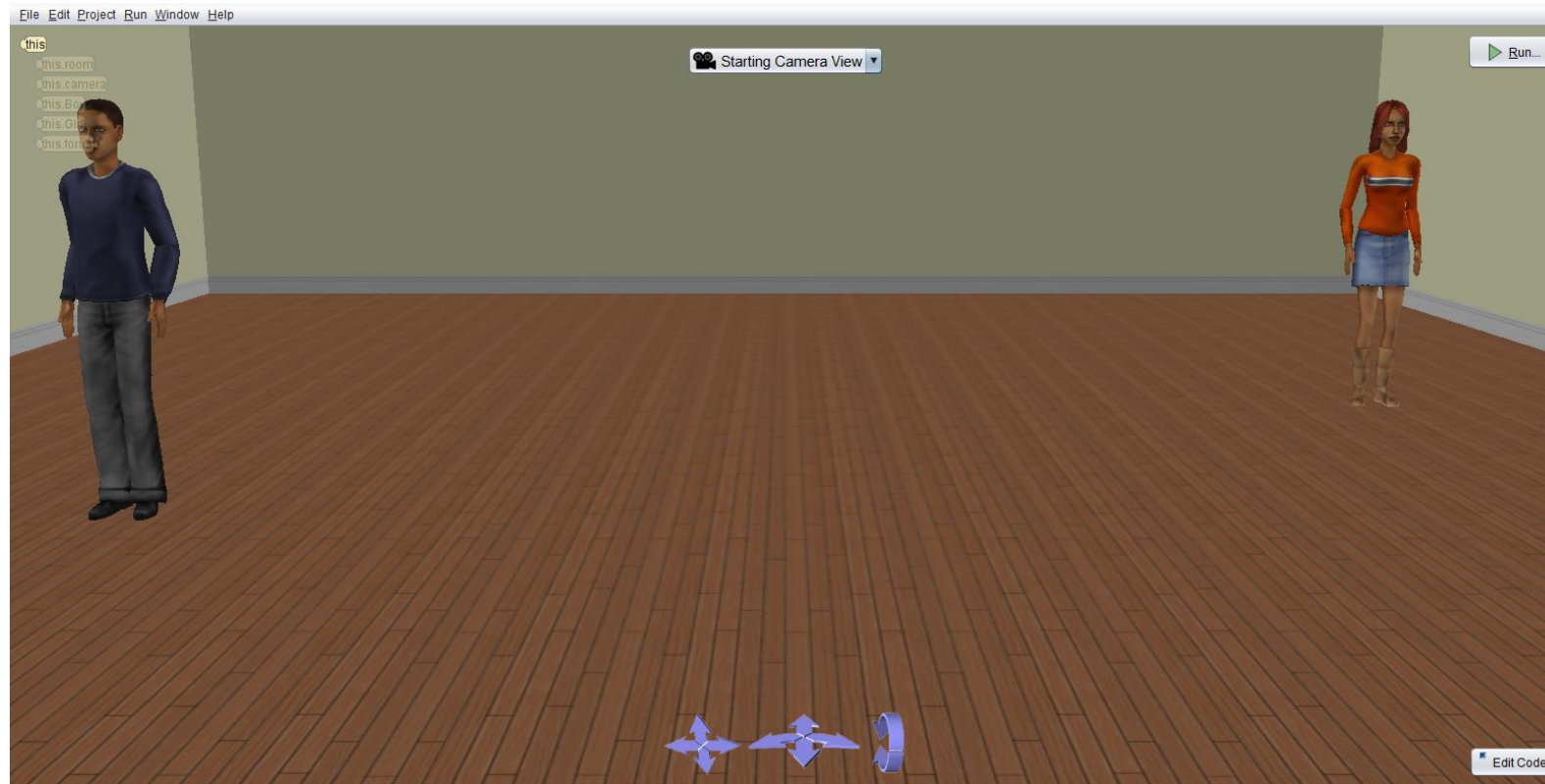
(Trol će se svaki puta različito povećati)





Djevojka i mladić
se primiču
i pričaju kad se sretnu

Odaberite likove i postavite ih u početni položaj na scenu



Likovi se okreću jedan prema drugome



Likovi se kreću dok se ne sretnu

Odabiremo naredbu

„dok se ne sretnu, kreću se prema naprijed”

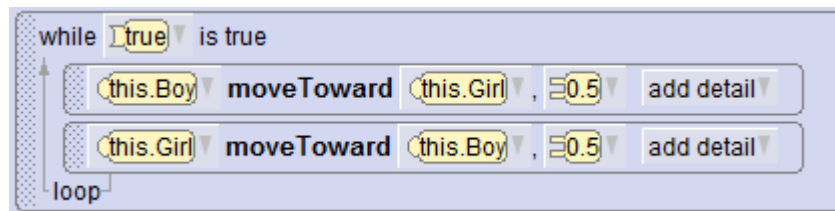
Koristimo naredbu **WHILE (DOK)** – dok se ne sretnu, pomiču se prema naprijed:



ŠTO SE DOGAĐA?

Ne dolaze točno na istu poziciju!

i

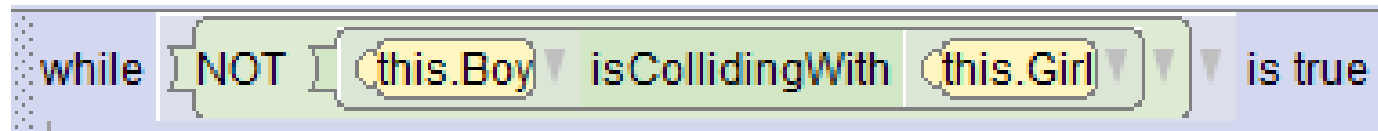


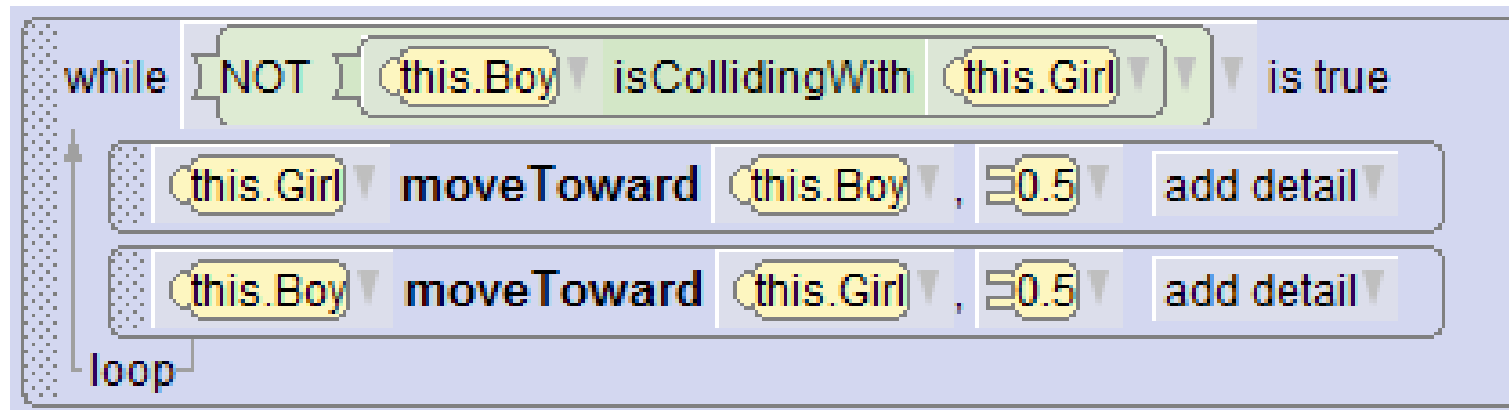
pa pokušajte!

Ovo kretanje prema drugom liku
moramo ograničiti na trenutak
kad se sretnu

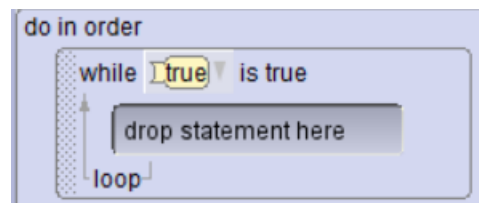
Trebamo reći: „krećite se jedan prema drugome
dok se ne sudarite (dok ne kolidirate)”:

collision=sudar





1.korak



2.korak

The image shows a Scratch 'while' loop menu for the condition 'true is true'. The menu is organized into several sections:

- Boolean literals:** 'true' (current value), 'true', and 'false'.
- Boolean functions:** 'nextRandomBoolean'.
- Boolean operators:** 'NOT true', 'NOT ???', 'BOTH true AND ???', 'EITHER true OR ???', 'BOTH ??? AND ???', and 'EITHER ??? OR ???'.
- Relational operators:**
 - Relational (DecimalNumber) { ==, !=, <, <=, >=, > }**
 - Relational (WholeNumber) { ==, !=, <, <=, >=, > }** (highlighted)
 - Relational (SThing) { ==, != }**
 - TextString Comparison**

The 'Relational (WholeNumber)' section is expanded, showing the following options:

- ???** < **???**
- ???** ≤ **???**
- ???** > **???**
- ???** ≥ **???**
- ???** == **???** (highlighted)
- ???** ≠ **???**

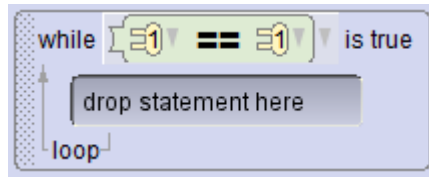
The '== ???' option is further expanded, showing the following values:

- 0
- 1** (highlighted)
- 2
- 3
- Custom WholeNumber...

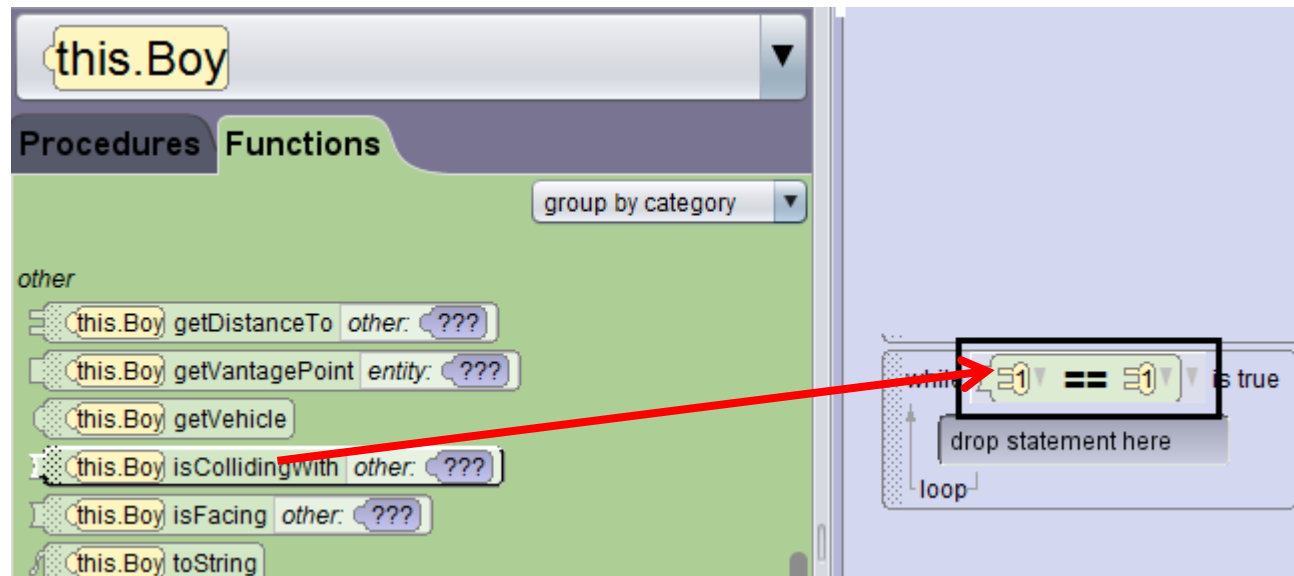
The 'Custom WholeNumber...' option is also expanded, showing the following values:

- 0
- 1** (highlighted)
- 2
- 3
- Custom WholeNumber...

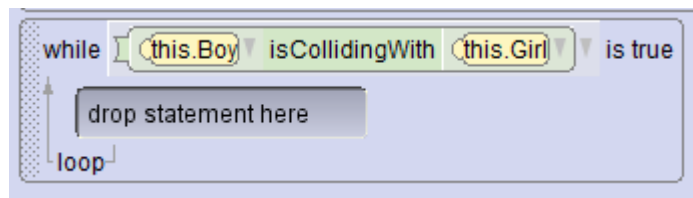
3. korak



4. korak

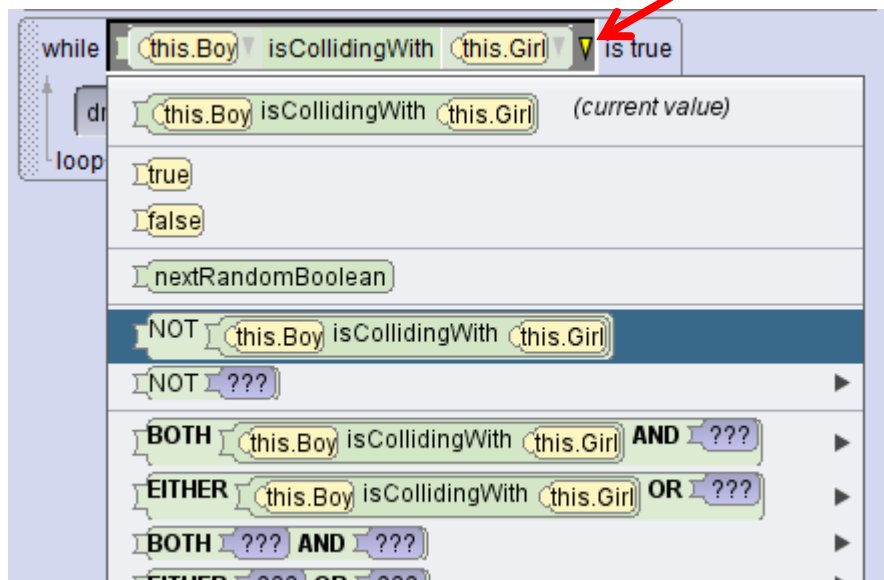


imamo:

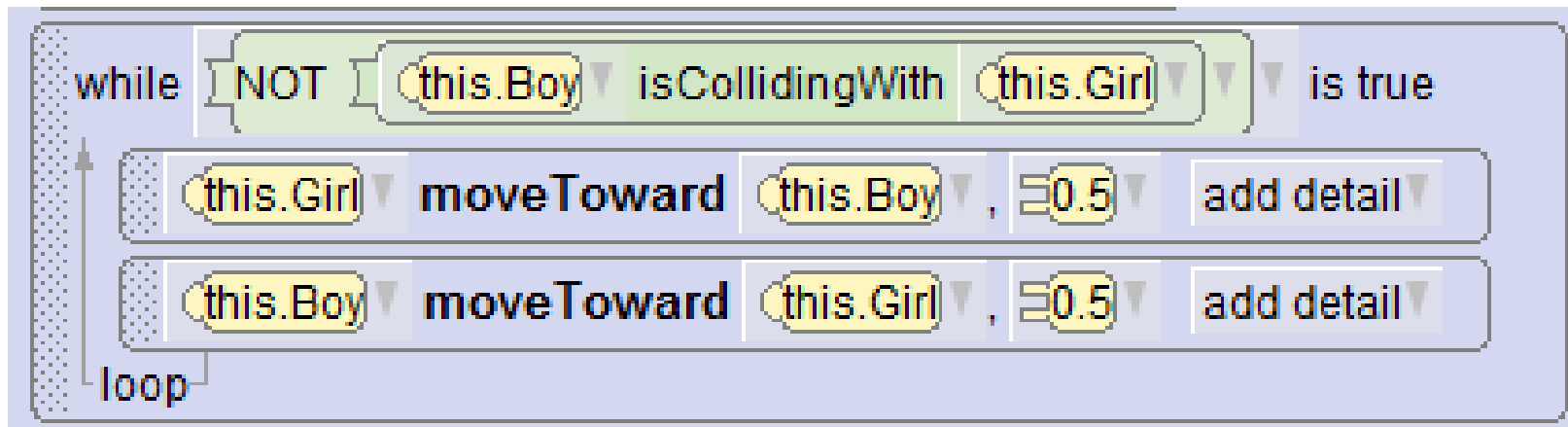


pazite, koju strelicu padajućeg izbornika odaberete!

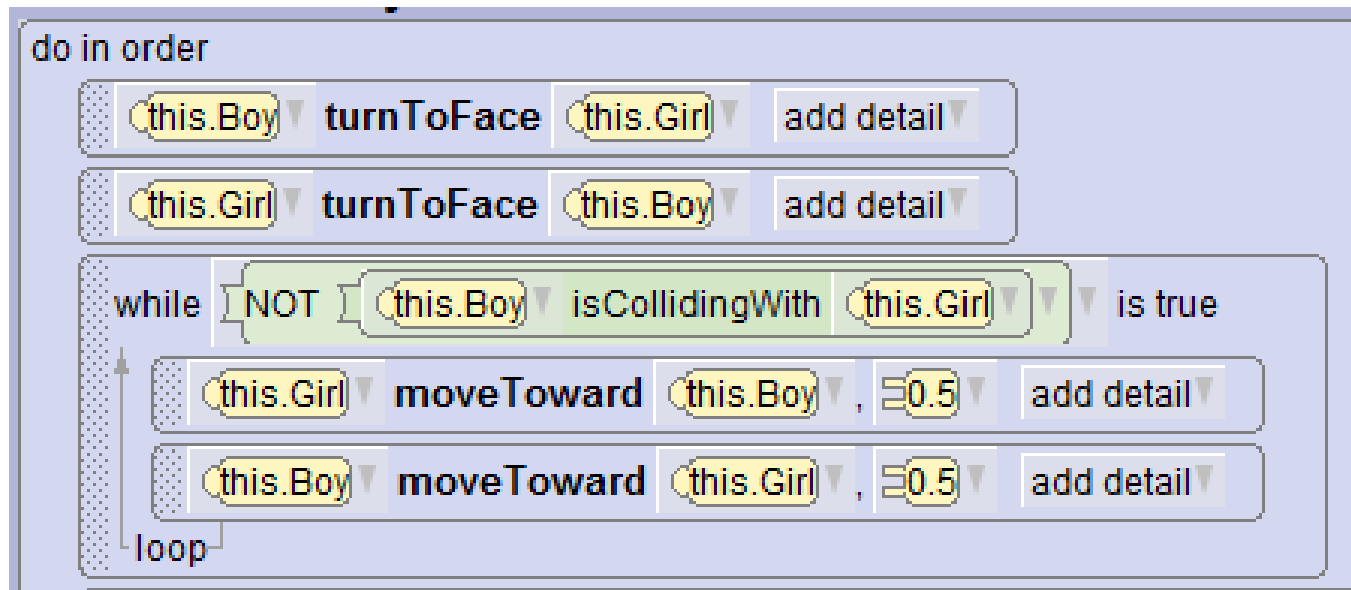
5.korak, umećemo negaciju:



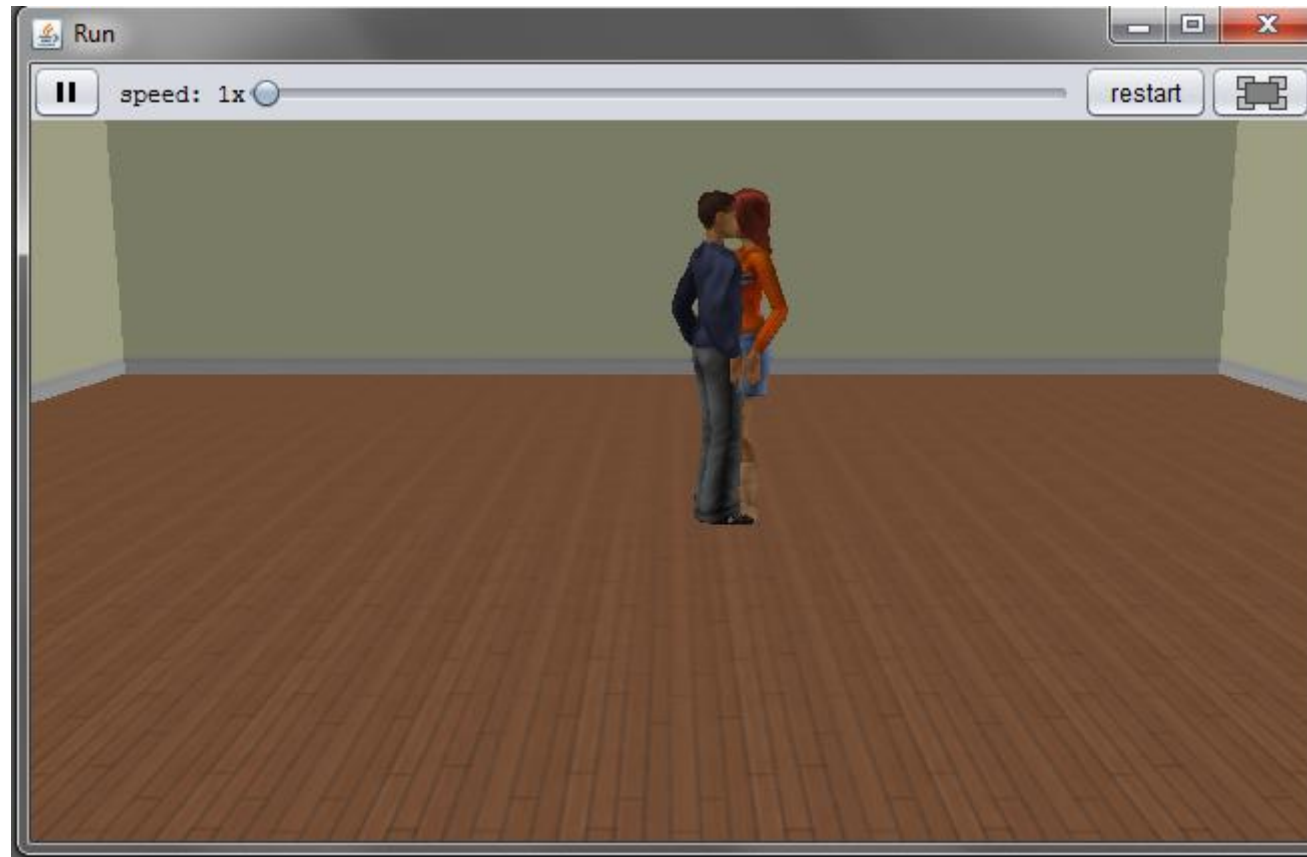
Sad pokrenimo jednog prema drugome dok se ne sretnu:



Do sada imamo program:



Pokrenimo ga...



Moramo malo to korigirati...

Moramo ograničiti njihovo kretanje

Kad i dođu jedan do drugoga, prekrit će se i to neće biti dobro. Oko djevojke ćemo zato napraviti jedan krug i mladić dolazi samo do ruba kruga.

Krug (torus)
napravimo
nevidljivim.
(Opacity=0)



Krug će se kretati
zajedno s djevojkom.

do in order

this.Boy turnToFace this.Girl add detail

this.Girl turnToFace this.Boy add detail

while NOT this.Boy isCollidingWith this.torus is true

do together

this.torus moveToward this.Boy, 0.25 add detail

this.Girl moveToward this.Boy, 0.25 add detail

this.Boy moveToward this.Girl, 0.5 add detail

loop

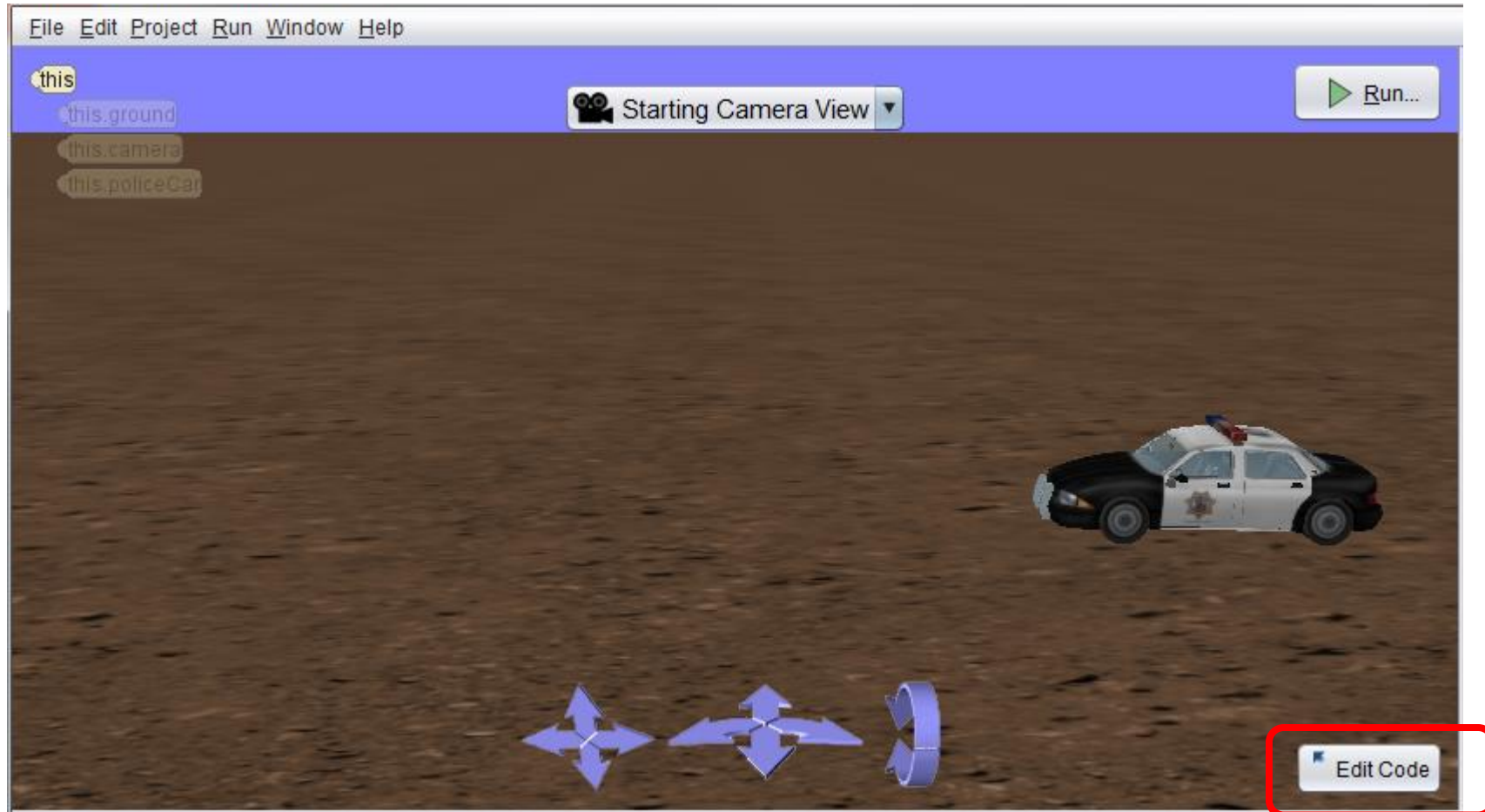
Kad se sretnu, popričaju:



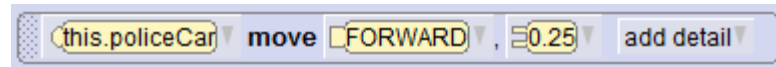


Auto vozi

Organizirajte scenu i postavite auto



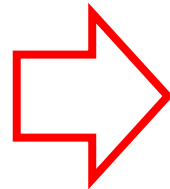
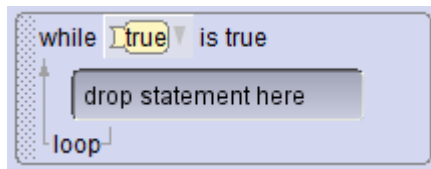
Napišimo kod za kretanje auta



zadovoljni?

Pokrenimo auto i krećimo ga ulijevo polako, na dulje vrijeme

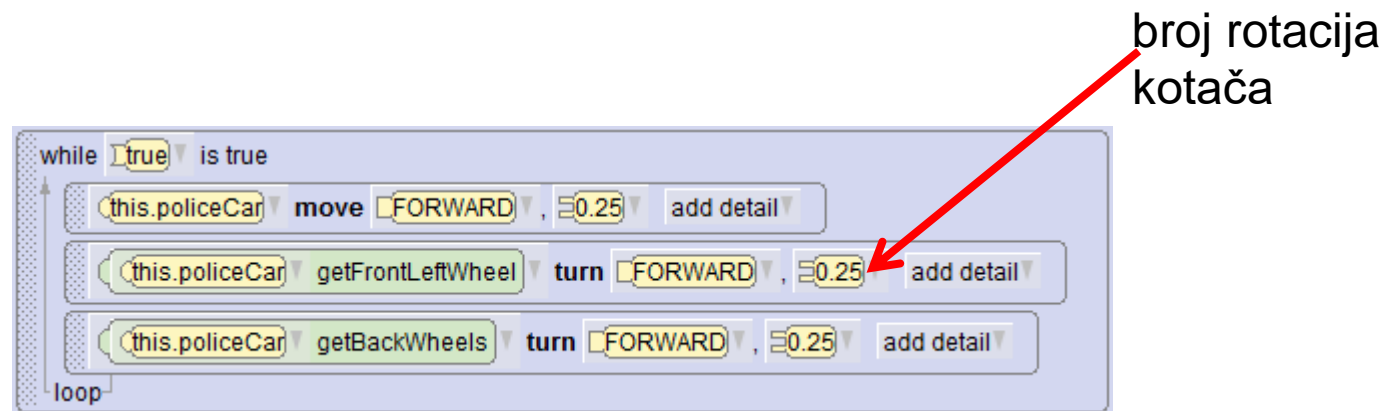
Reći ćemo: **DOK (while)** je nešto istinito, kreći auto:



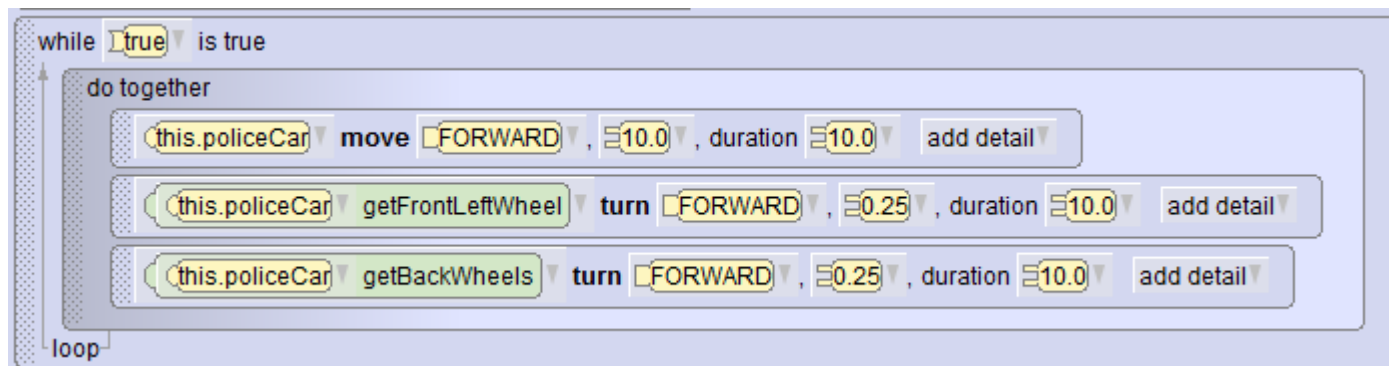
Ako ne želimo vožnju zauvijek,
možemo koristiti nevidljivi cilindar kao
prepreku – važnost postavljanja scene!

1. Postavimo cilindar
2. Auto dovedemo do njega
3. Provjerimo kamerama
4. Auto maknemo unazad za 10
5. Cilindar napravimo nevidljivim!

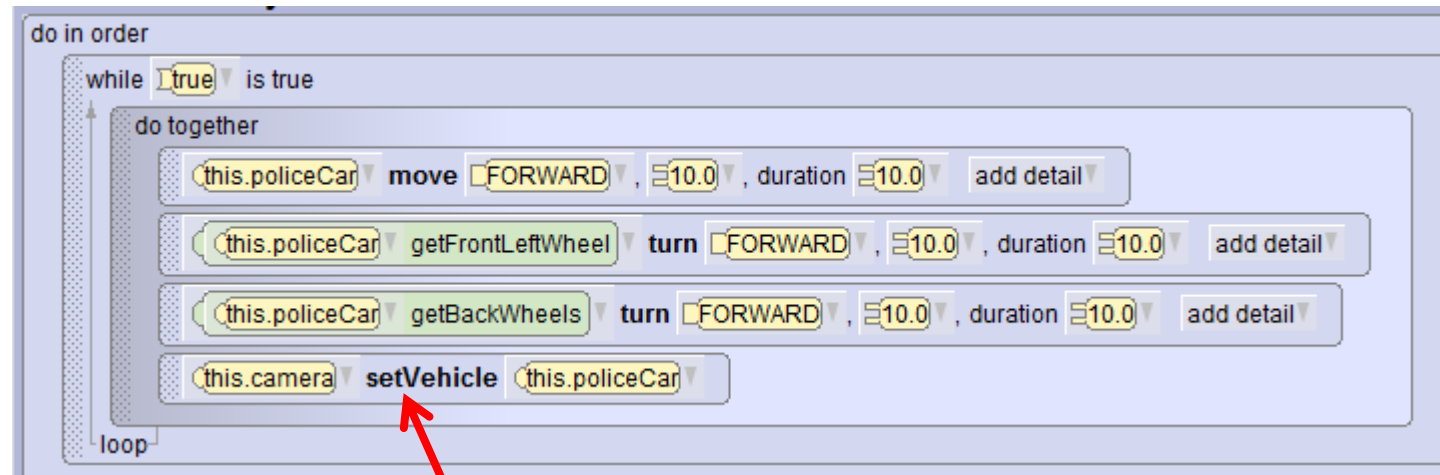
Mogli bi pokrenuti i kotače!



Nekako nisu sinhronizirani (prvo se miče auto, zatim prvi kotači, pa zadnji!) pokreti, to ćemo popraviti tako da svi zajedno u isto vrijeme krenu:



Pokrenite kameru da snima i prati kretanje auta:



prati kretanje auta („podloga se miče”)



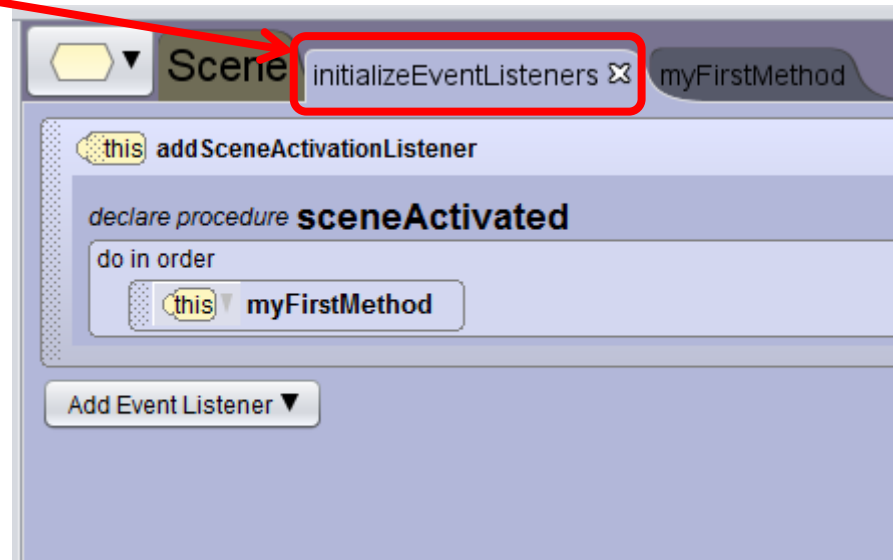
Riba pliva

Organizirajmo scenu



Napišimo kod za kretanje ribe kursorskim strelicama

Program „osluškuje”
pritisak tipkovnice



Event Listeners

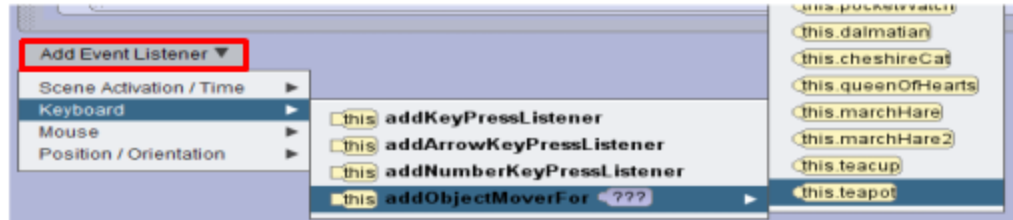
- Event listeners are procedures in the Scene class that listen for keyboard input while the animation is running.
- Keyboard keys can be programmed to:
 - Move an object up or down when certain keys are pressed.
 - Move an object forward, backward, left, and right using the arrow keys.
 - Make an object perform an action, such as speak or disappear.

Types of Event Listeners

- There are four types of event listeners available in Alice 3:
 - Scene Activation/Time
 - Keyboard
 - Mouse
 - Position/Orientation

Steps to Move Objects Using Arrow Keys

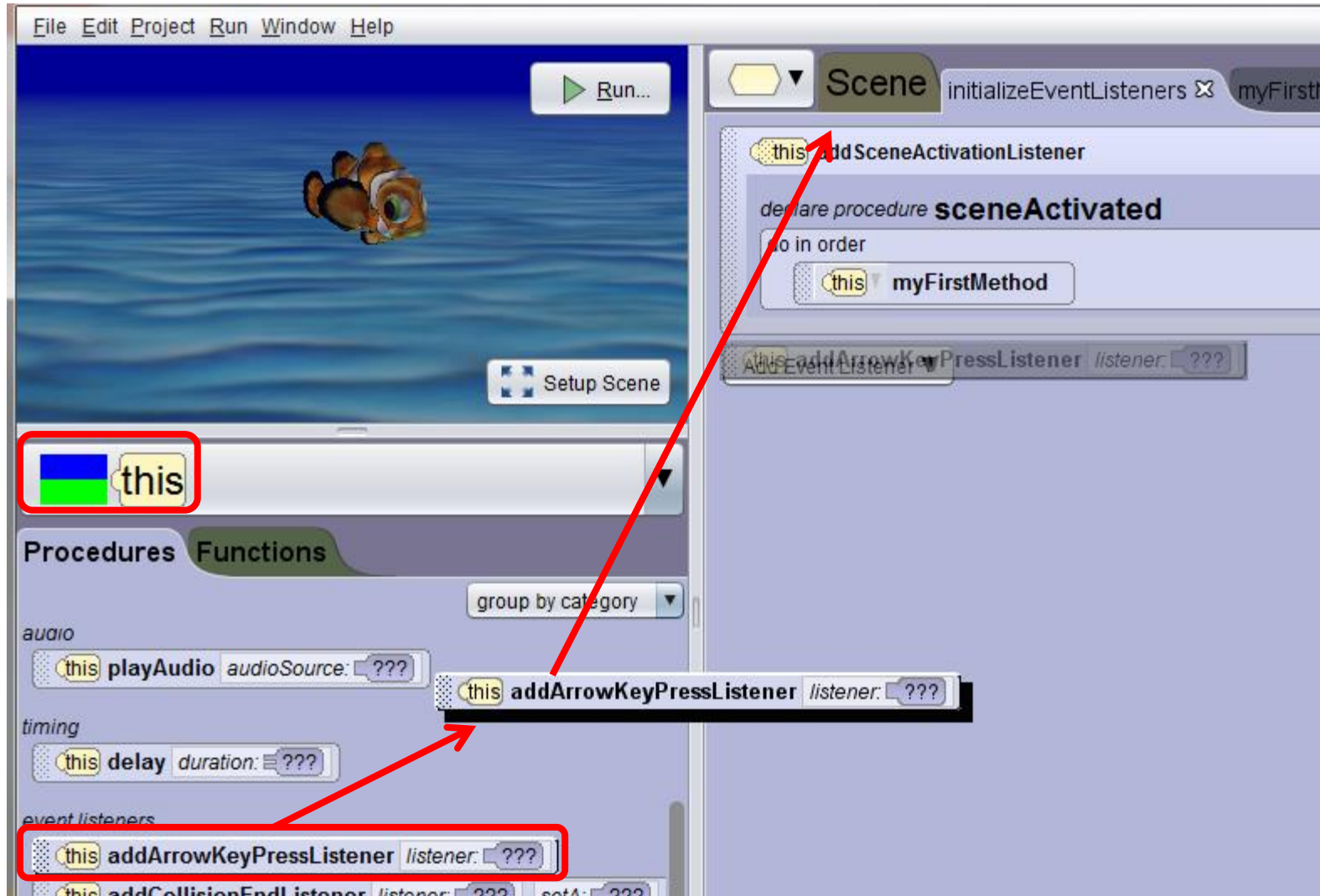
- Select the Add Event Listener drop-down menu.
- Select Keyboard.
- Select addObjectMoverFor.
- Select the entity, or object, to control.



- Creates the following line of code



Umećemo **addArrowKeyPressListener** proceduru



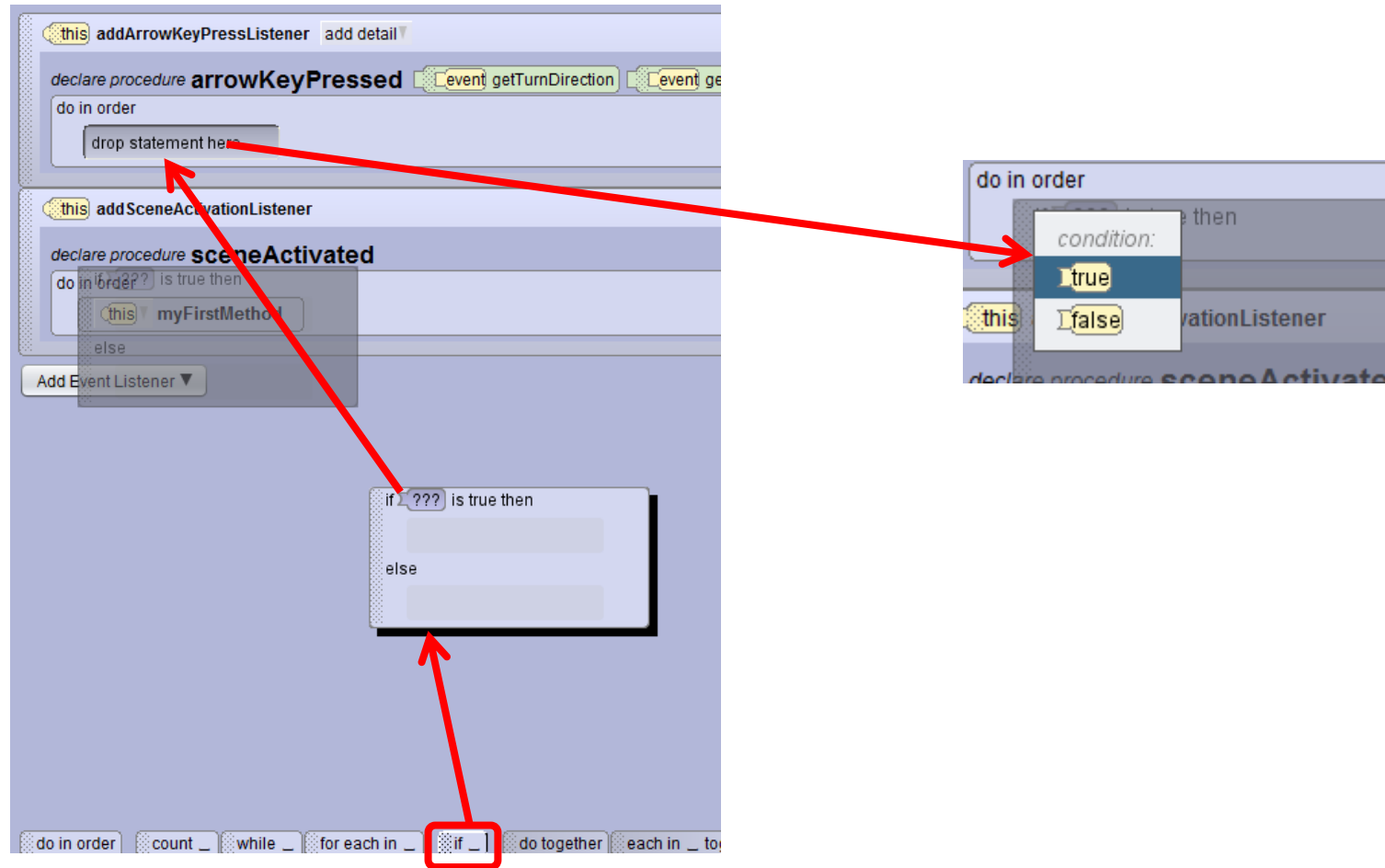
this addArrowKeyPressListener add detail ▾

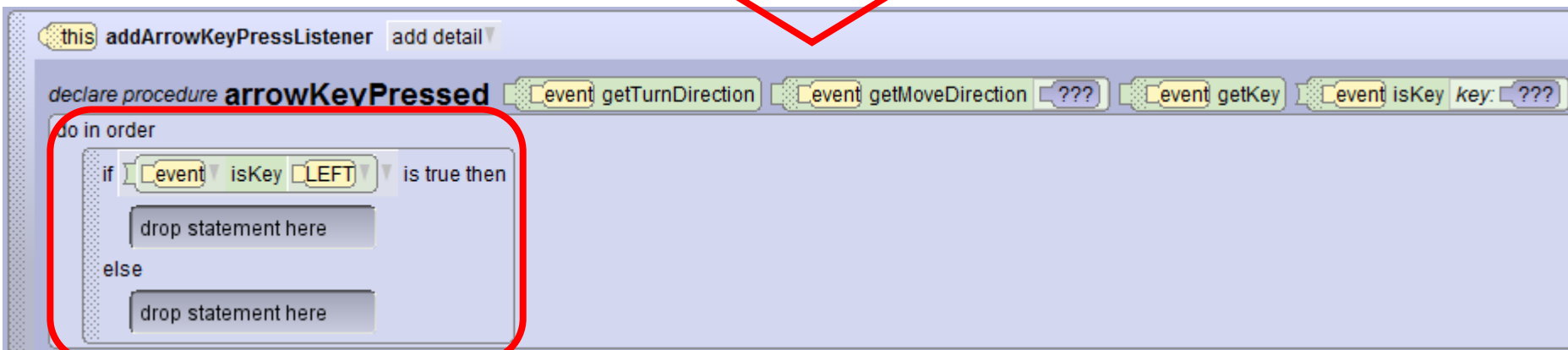
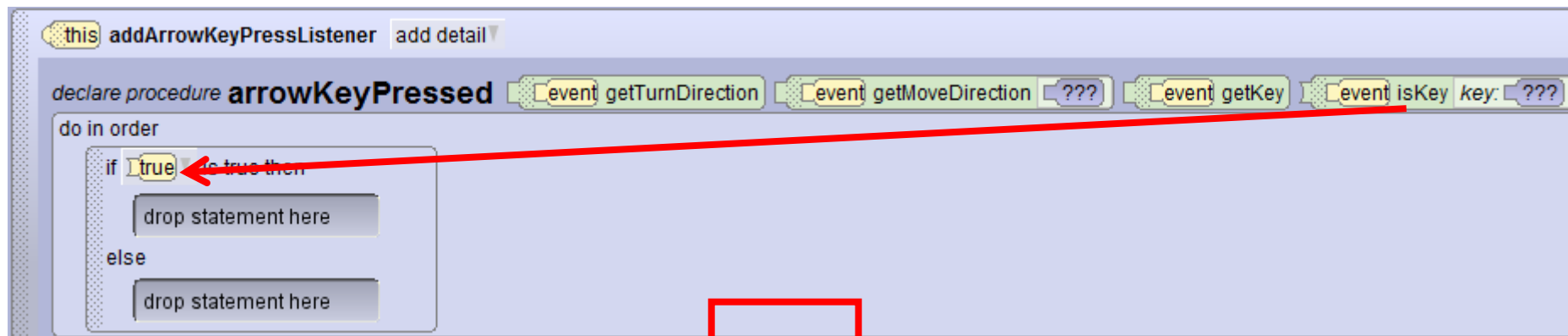
declare procedure **arrowKeyPressed** [event] getTurnDirection [event] getMoveDirection [??] [event] getKey [event] isKey key: [??]

do in order

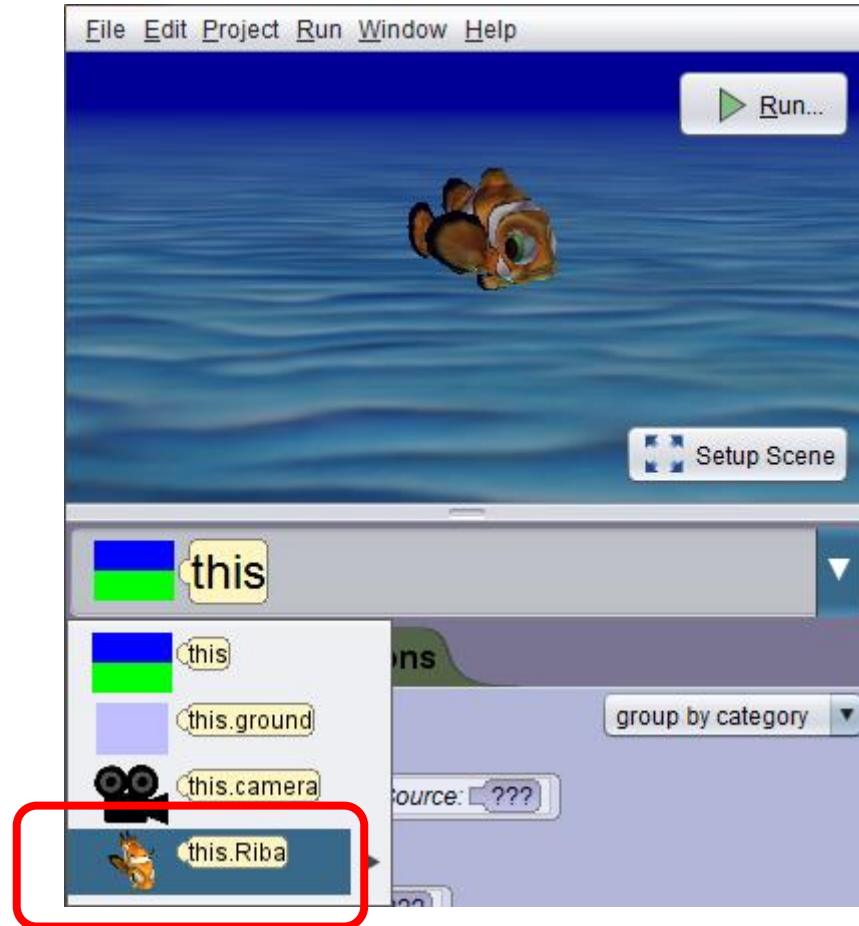
drop statement here

Sada koristimo naredbu IF...THEN sa dna ekrana

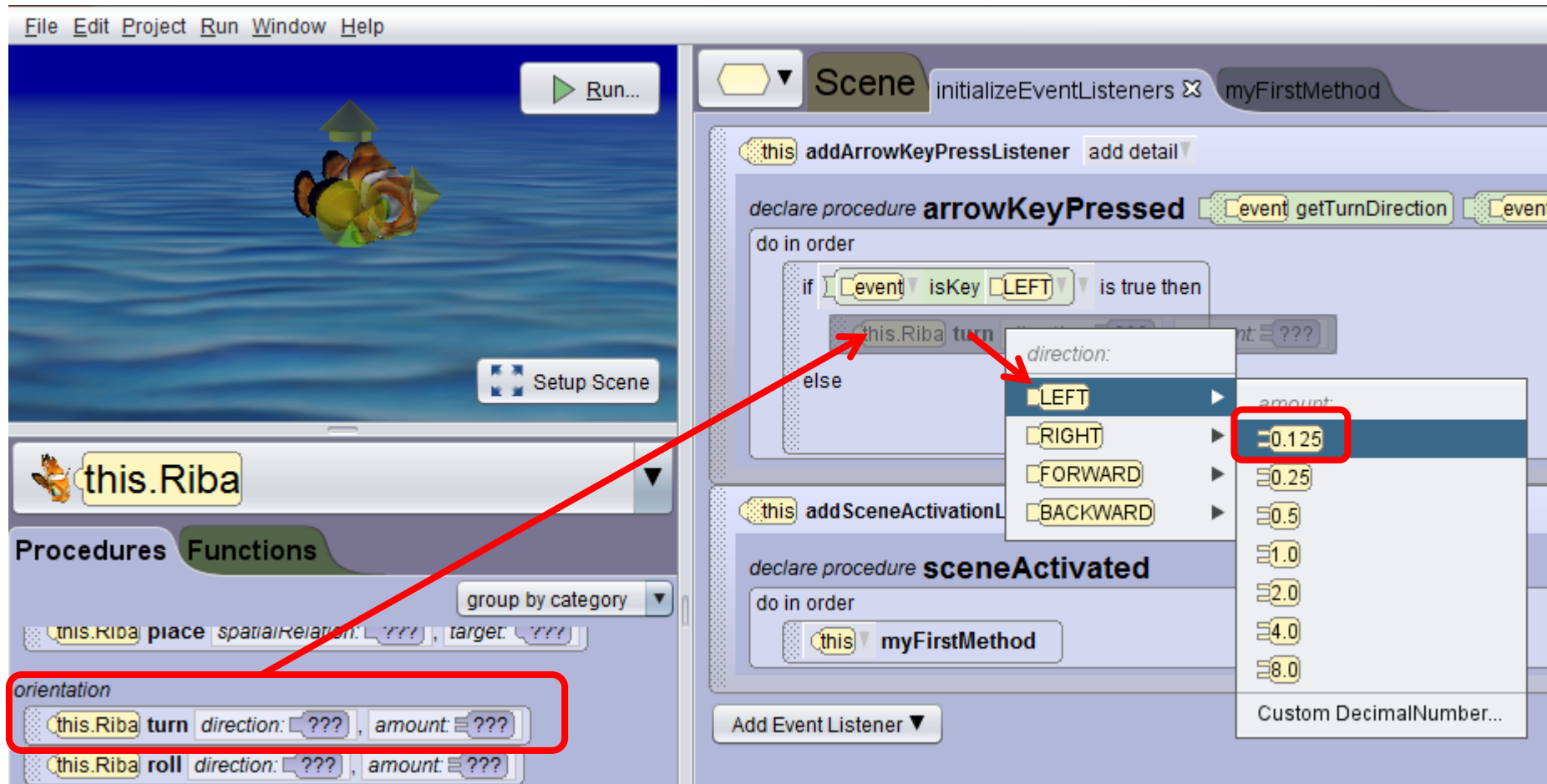




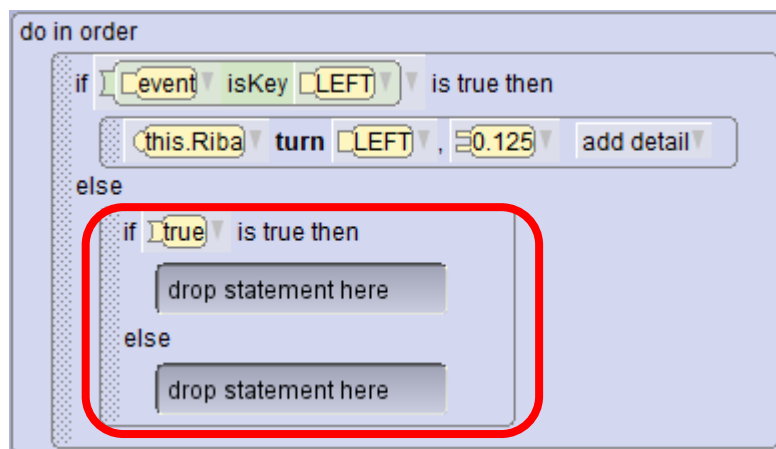
Odaberemo ribu



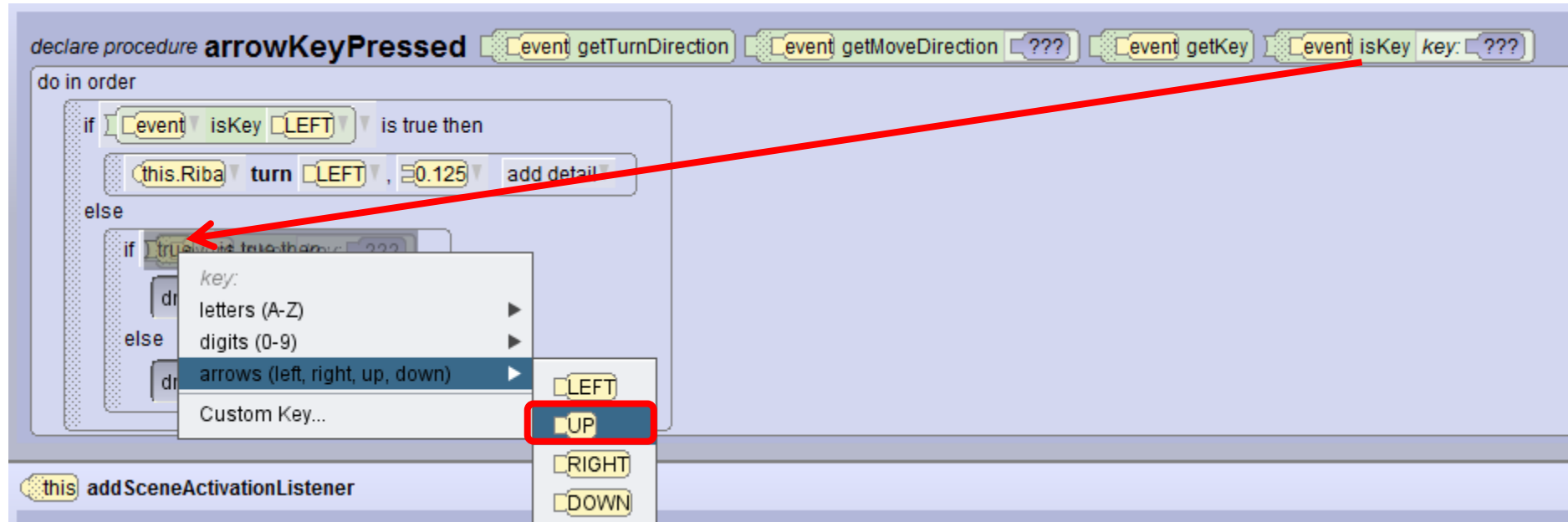
Odaberemo radnju okretanja (turn) ulijevo za 0.125 jedinica



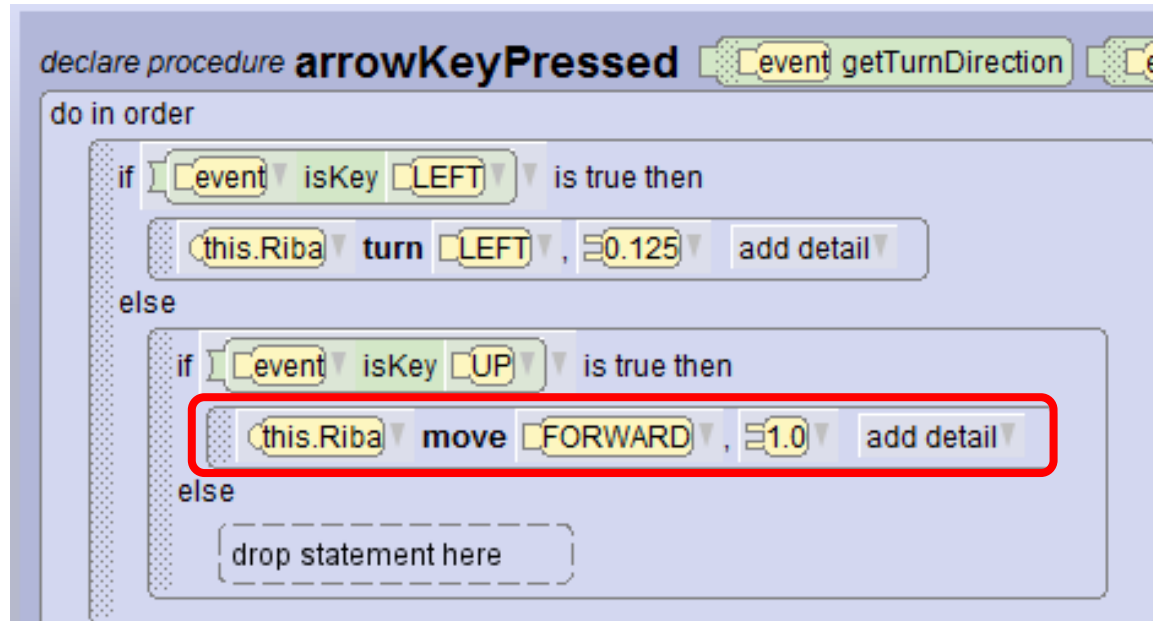
Dodamo novu if naredbu iza **ELSE**



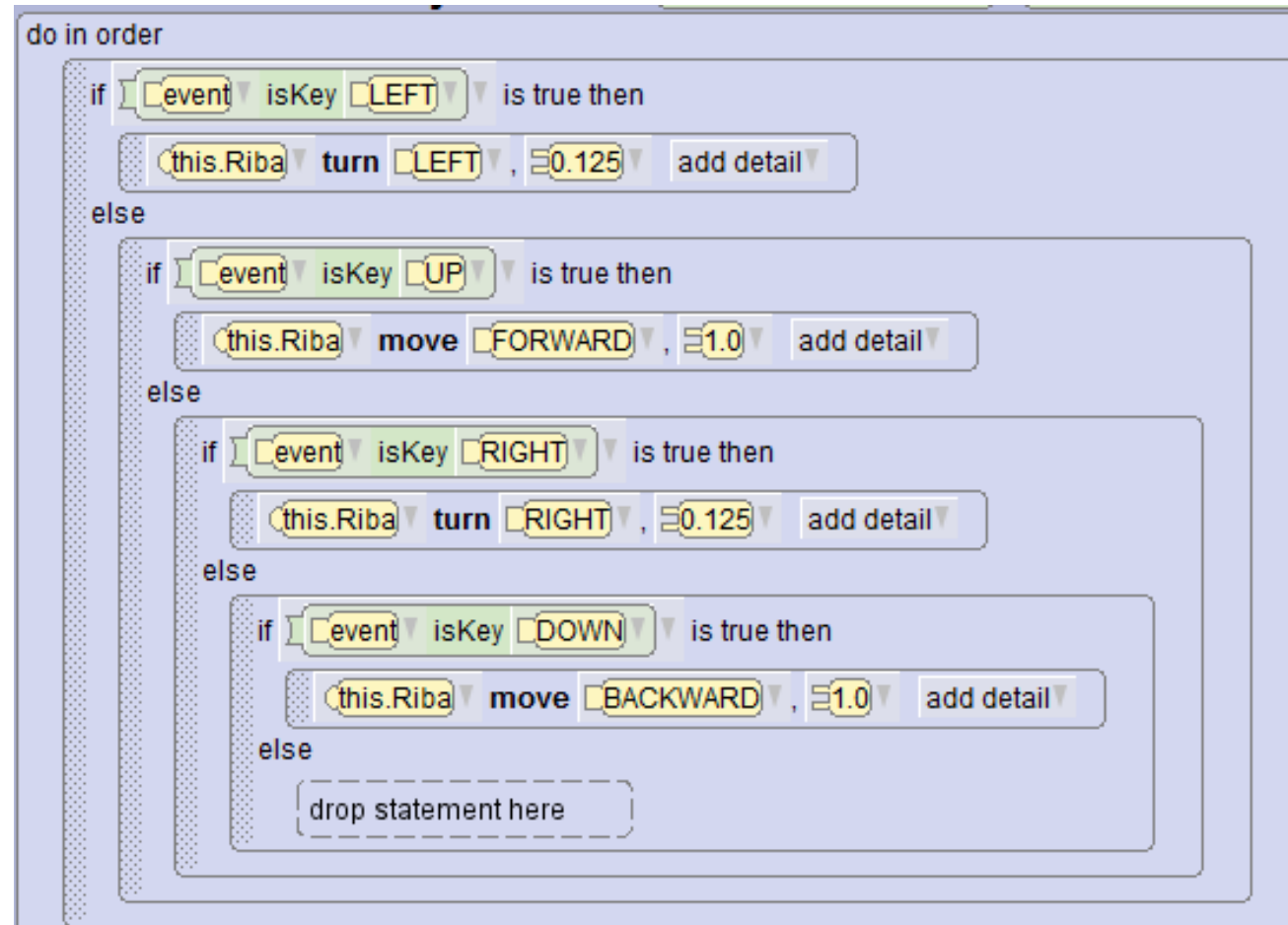
Ako pritisnemo na tipku GORE (UP)



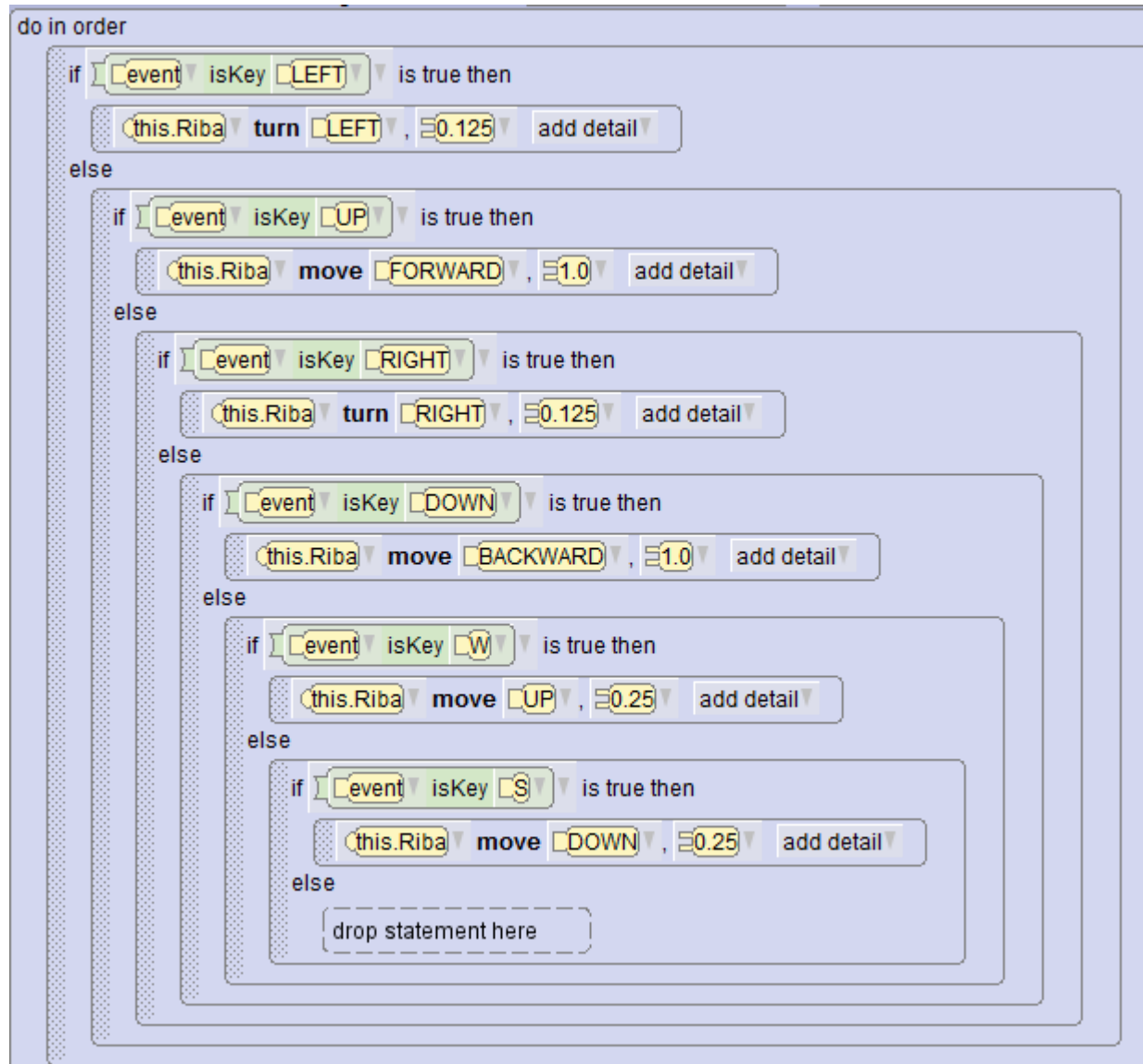
Definiramo pritisak na tipku GORE (up) i **pomak** naprijed za 1



Dovršte:



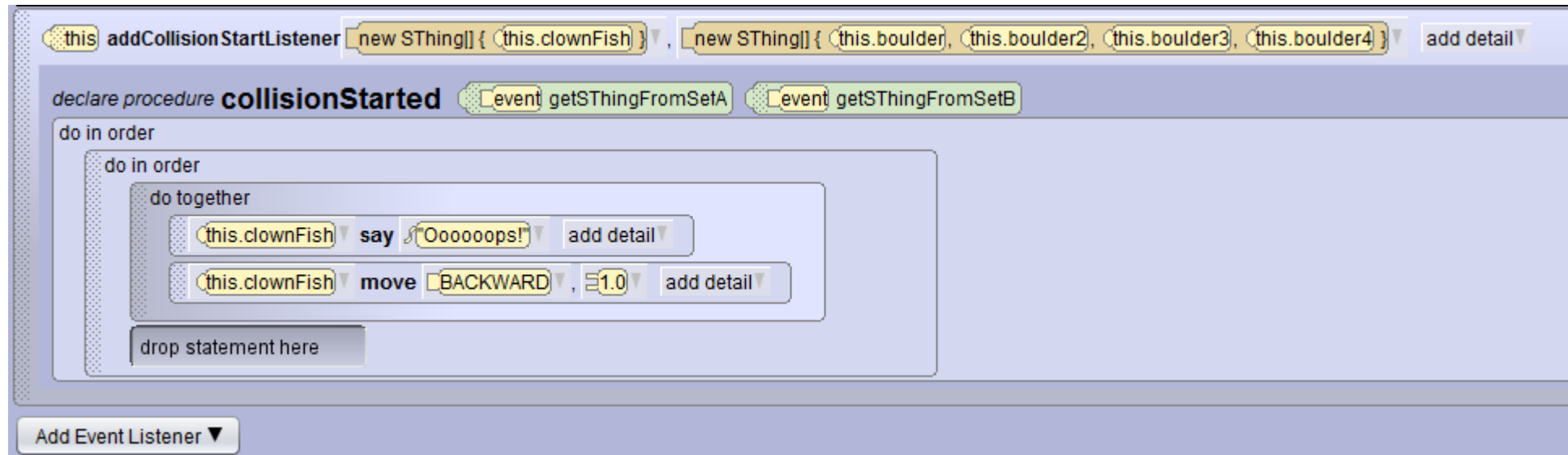
Dodajte još pomicanje GORE- DOLJE slovima w i s



Starting Camera View



Postavite neke prepreke pa
pomičite ribu između njih
- pokušajte je i odbiti ako dođe
do prepreke!





Izrada jednostavne igrice
„Skupljanje gljiva”

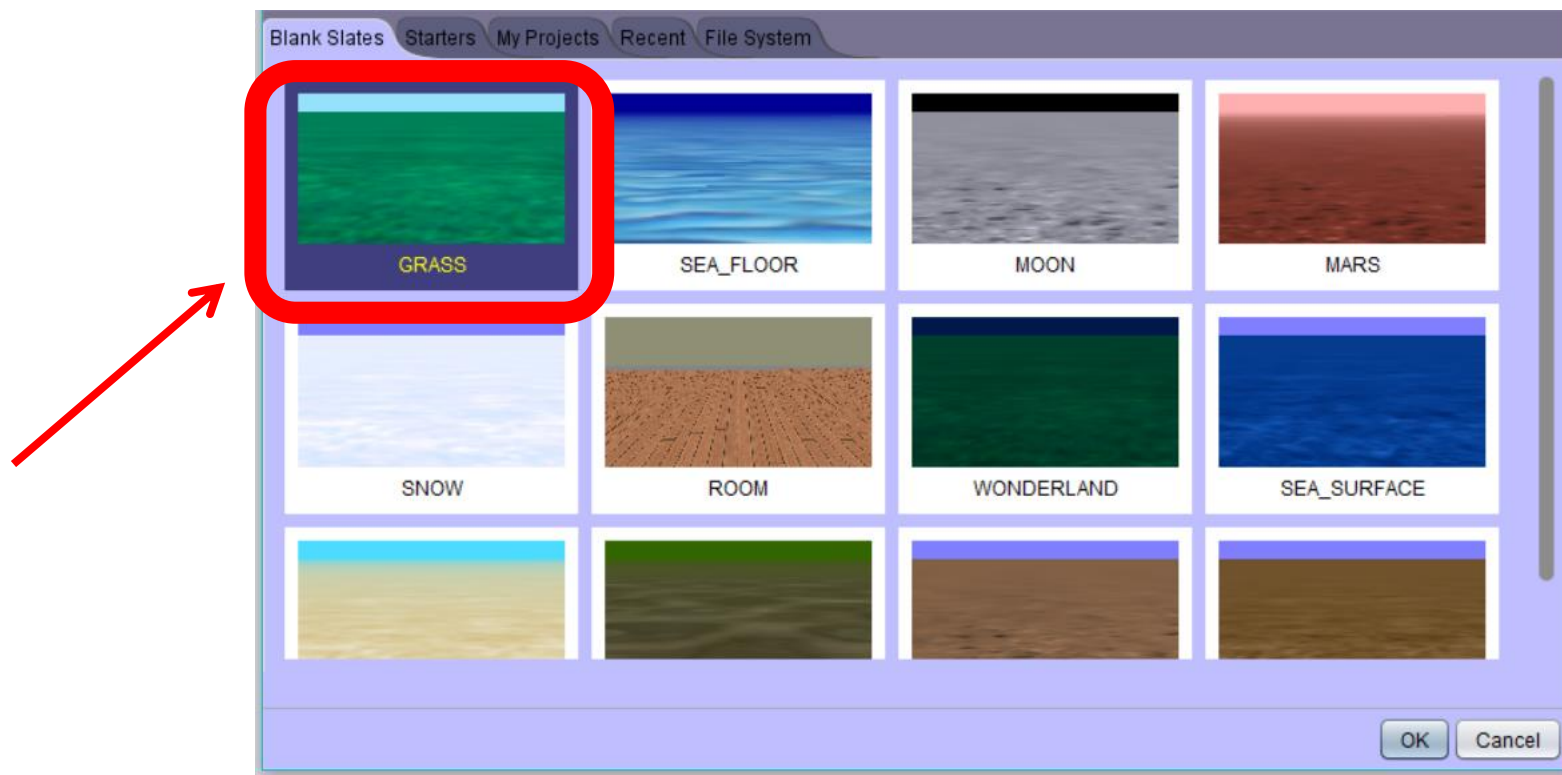
Skupljanje gljiva

1. Izradit ćemo igru s Alisom koja skuplja gljive
2. Kursorskim strelicama kontroliramo Alisu
3. Dvije gljive su na livadi
4. Kada Alisa dođe do gljive, gljiva nestane, Alisa promijeni veličinu
5. Na kraju se vraća na početnu poziciju

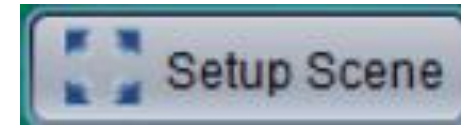


Pokrenimo Alice 3

Za pozadinu odabiremo travu:



Idemo na obradu scene



Izradite scenu sa sljedećim likovima:



PAZITE: SVAKA GLJIVA MORA IMATI DRUGO IME!!!

Nakon što namjestimo likove na
sceni, oko svakog lika
napravimo nevidljivi torus.

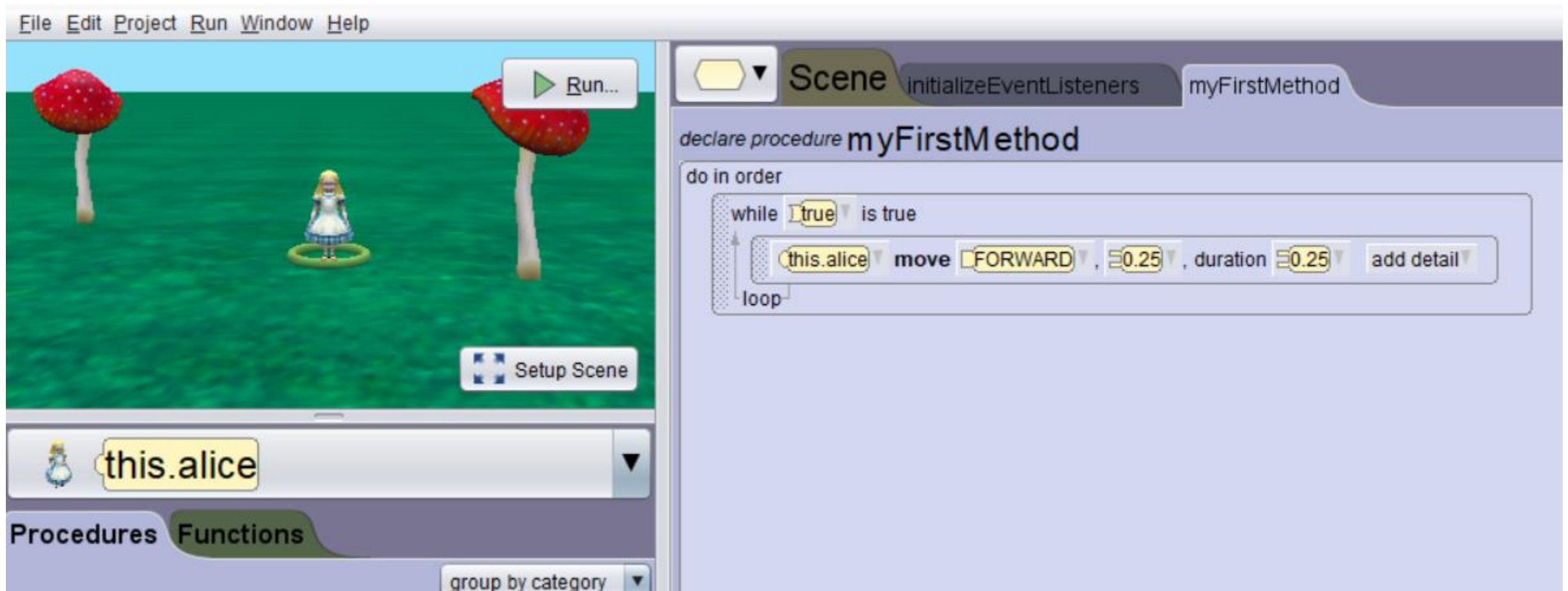
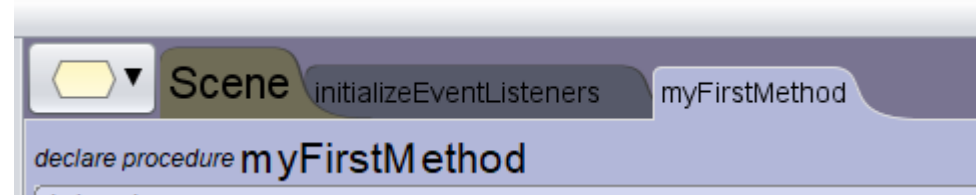
Prvo kažimo da se Alisa neprestano miče prema naprijed (0.25 i brzinom 0.25) sve dok ne pokupi sve gljive.

Gljiva je „pokupljena” kad joj je Opacity jednak nuli.

Na kraju se Alisa vraća u početnu poziciju
Kad pokupi Gljivu1, smanji se 4 puta, a kad pokupi Gljivu2, poveća se 4 puta.

Napravimo i tri nevidljiva torusa: oko gljiva i
oko Alise.

Početni program



initializeEventListeners ✕

Kako to napraviti?
Krenimo koracima:

The image displays three sequential screenshots of a Scratch script editor, illustrating the implementation of event listeners and procedures for a game.

Top Screenshot: Shows the `addKeyPressListener` block with the `add detail` dropdown open. Below it, the `keyPressed` procedure is declared with parameters `event` (isLetter), `event` (isDigit), `event` (getKey), and `event` (isKey key: ???). The procedure body contains a `do in order` loop with two conditional blocks:

- `if event isKey LEFT is true then`
 - `this.alice turn LEFT, 0.125 add detail`
 - `else`
 - `drop statement here`
- `if event isKey RIGHT is true then`
 - `this.alice turn RIGHT, 0.125 add detail`
 - `else`
 - `drop statement here`

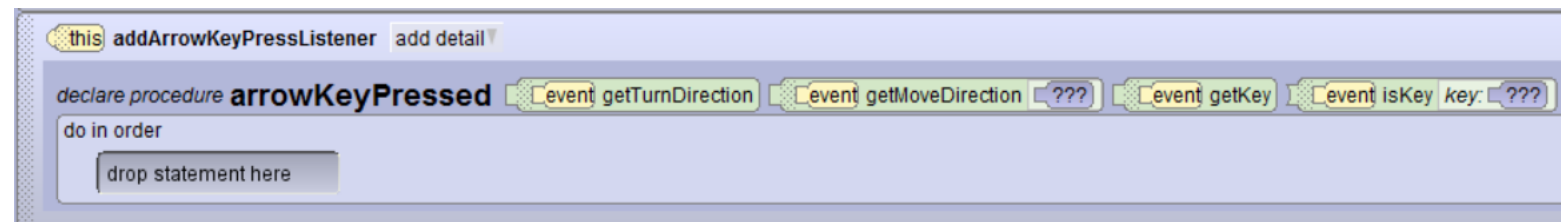
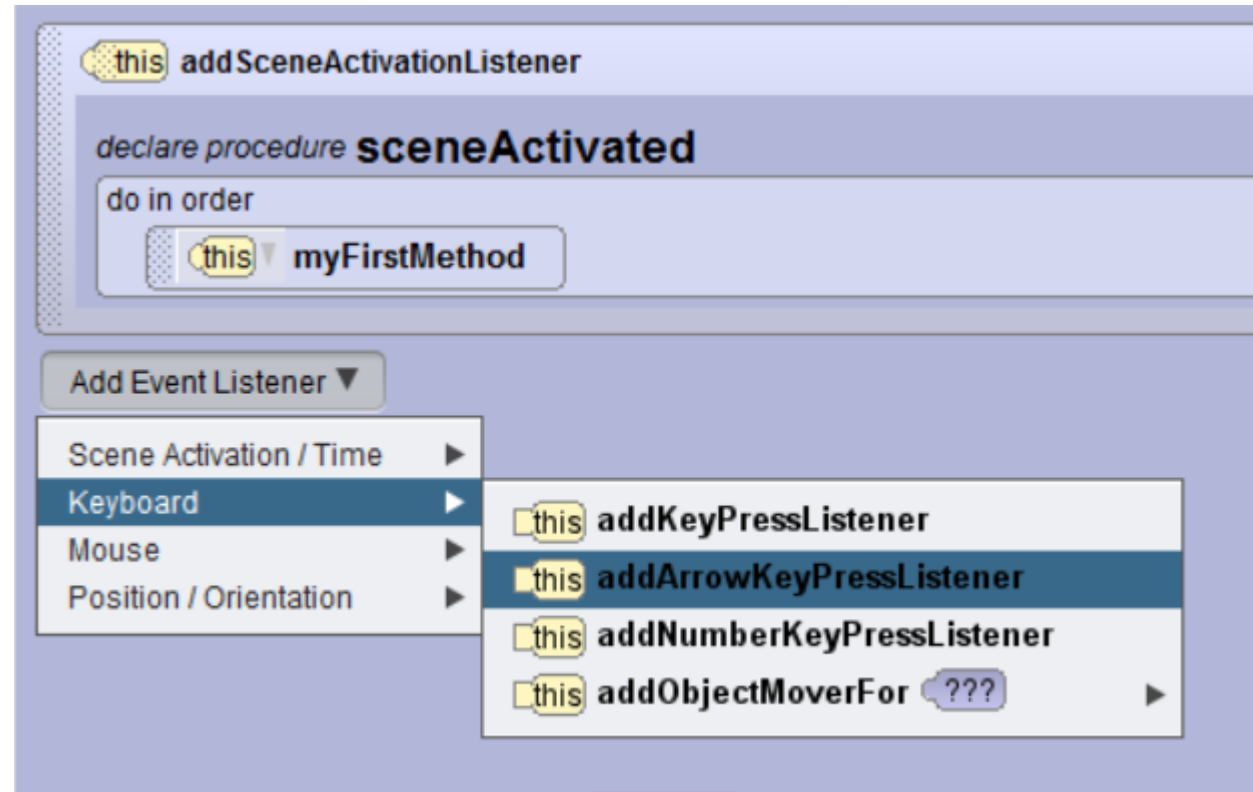
Middle Screenshot: Shows the `addCollisionStartListener` block with the `add detail` dropdown open. Below it, the `collisionStarted` procedure is declared with parameters `event` (getSThingFromSetA) and `event` (getSThingFromSetB). The procedure body contains a `do in order` loop with two blocks:

- `this.mushroom2 setOpacity 0.0 add detail`
- `this.alice resize 0.25 add detail`

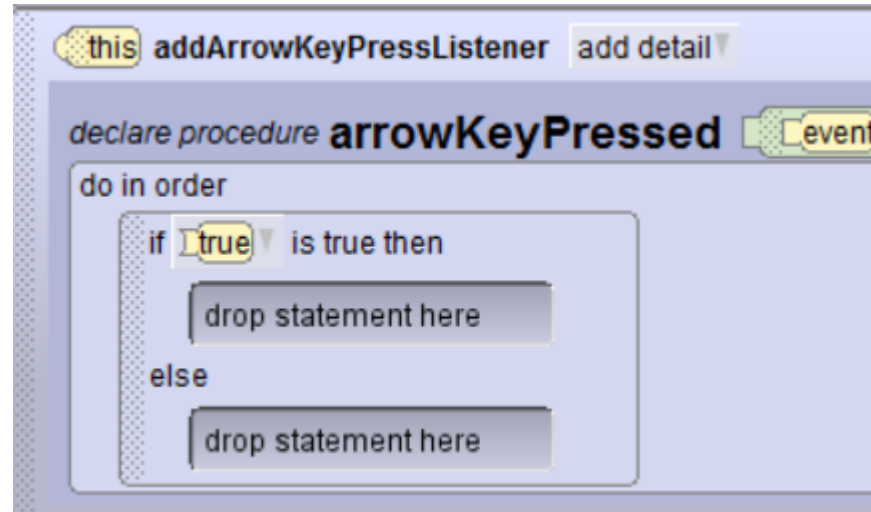
Bottom Screenshot: Shows the `addCollisionStartListener` block with the `add detail` dropdown open. Below it, the `collisionStarted` procedure is declared with parameters `event` (getSThingFromSetA) and `event` (getSThingFromSetB). The procedure body contains a `do in order` loop with two blocks:

- `this.mushroom setOpacity 0.0 add detail`
- `this.alice resize 4.0 add detail`

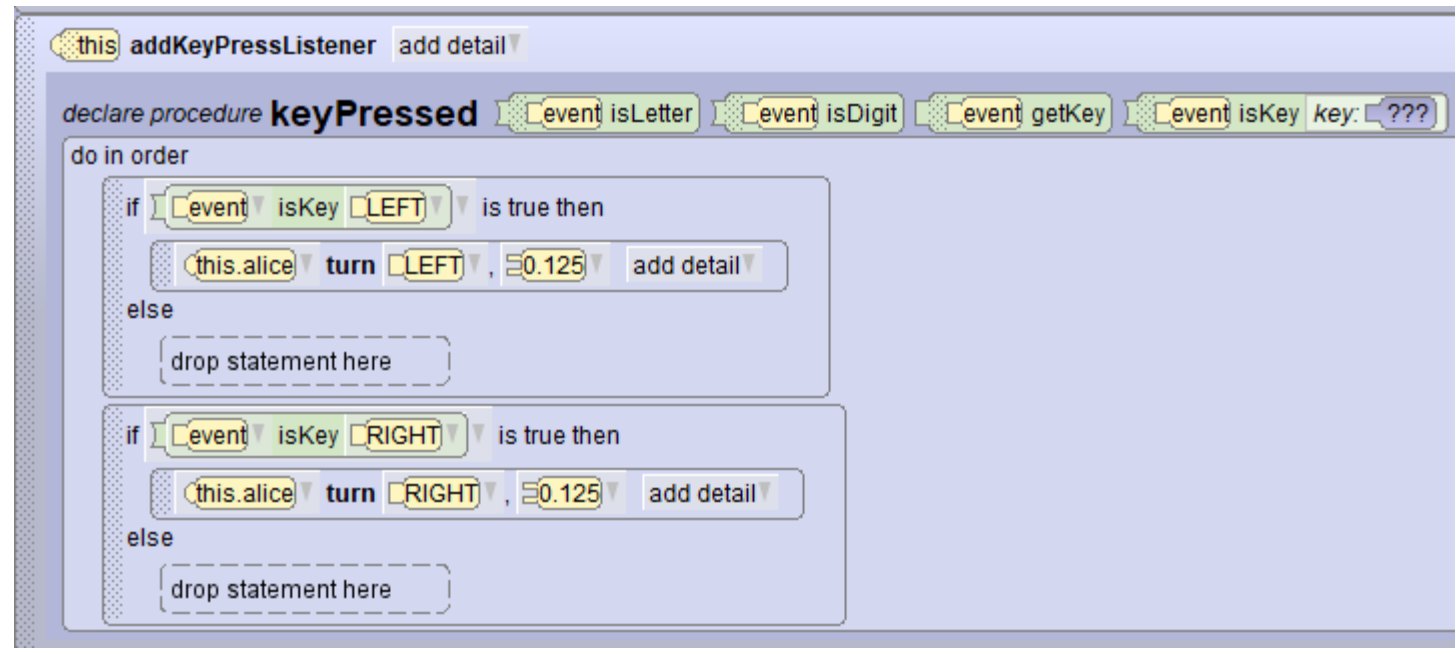
Pokrećimo je tipkama lijevo i desno:



dodajemo if_

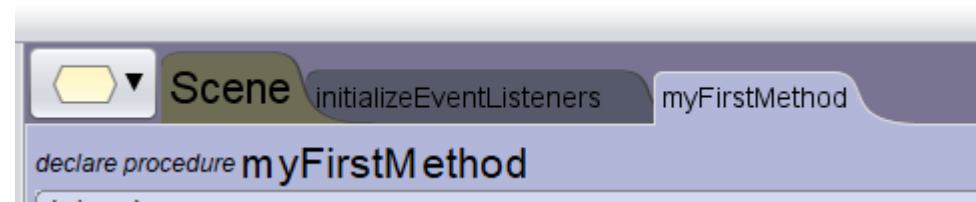


krećemo se samo lijevo - desno



Alisa se miče sve dok se ne zadovolji uvjet
(postane istinit) da su obje gljive nevidljive!

Početni program



Sada moramo opisati što će se
dogoditi kad Alisa dođe do
gljive. Gljiva bi trebala nestati.
(vidljivost „Opacity” joj se smanji
na nulu)

Kad se dodirne s nekim od torusa, naraste ili se smanji i gljiva postane nevidljiva

The image displays two blocks of code from a visual programming environment, likely Scratch, showing collision listener logic. Both blocks are structured as follows:

- Block 1:** `this addCollisionStartListener` with two arguments: `new SThing[] { this.alice }` and `new SThing[] { this.torus }`. It includes an `add detail` button.
- Block 2:** `declare procedure collisionStarted` with two event arguments: `event getSThingFromSetA` and `event getSThingFromSetB`.
- Block 3:** `do in order` containing two sub-blocks:
 - `this.mushroom2 setOpacity 0.0` with an `add detail` button.
 - `this.alice resize 0.25` with an `add detail` button.

The second block is identical in structure but uses different object references:

- Block 1:** `this addCollisionStartListener` with arguments `new SThing[] { this.alice }` and `new SThing[] { this.torus2 }`.
- Block 2:** `declare procedure collisionStarted` with the same event arguments.
- Block 3:** `do in order` containing:
 - `this.mushroom setOpacity 0.0` with an `add detail` button.
 - `this.alice resize 4.0` with an `add detail` button.

Alisa se vraća na početak kad su sve gljive ubrane:

Čekamo dok vidljivost svih gljiva ne postane nula:

