

# Learn Snap! By Creating Games

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# Game 1

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## Programming

- Sequence of commands

## Snap!

- Elements of the Snap! Screen
- Editing a script
- Run a Snap! Program
- Sound



# Game 1: Exercise - Guess 3 seconds

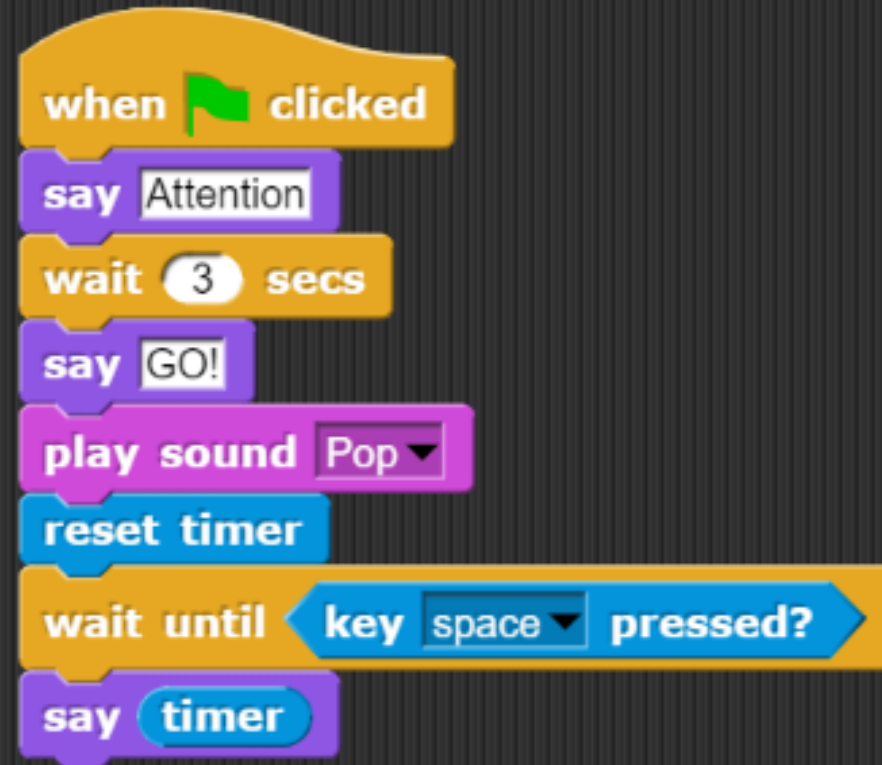
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Idea:

- Player should guess 3 seconds time as close as possible

Description:

- Sprite counts down 3 2 1 GO!
- Reset the timer
- Wait for space key
- Say the timer value





# Game 2

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## Programming

- Loops

## Snap!

- Moving and turning a sprite
- Coordinates
- Costumes



# Game 2 Exercise: Create a Movie

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Idea:

- Just play with animations.  
Create a little movie!

Description:

- Can you make the sprite go in a circle? Square?
- Try the 3 different turning modes
- Make the sprite go somewhere, say something, move on ...





# Game 3: Balloon Busting

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## Programming

- Conditions
- Events

## Snap!

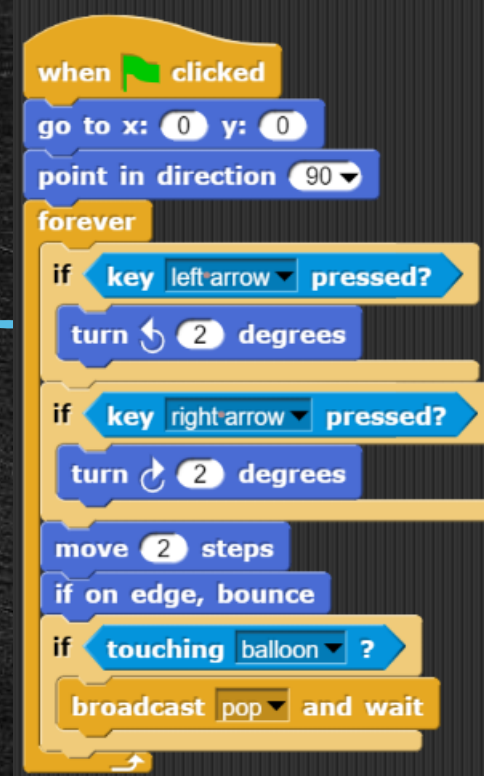
- Sensing (input, sprites)
- Multiple sprites



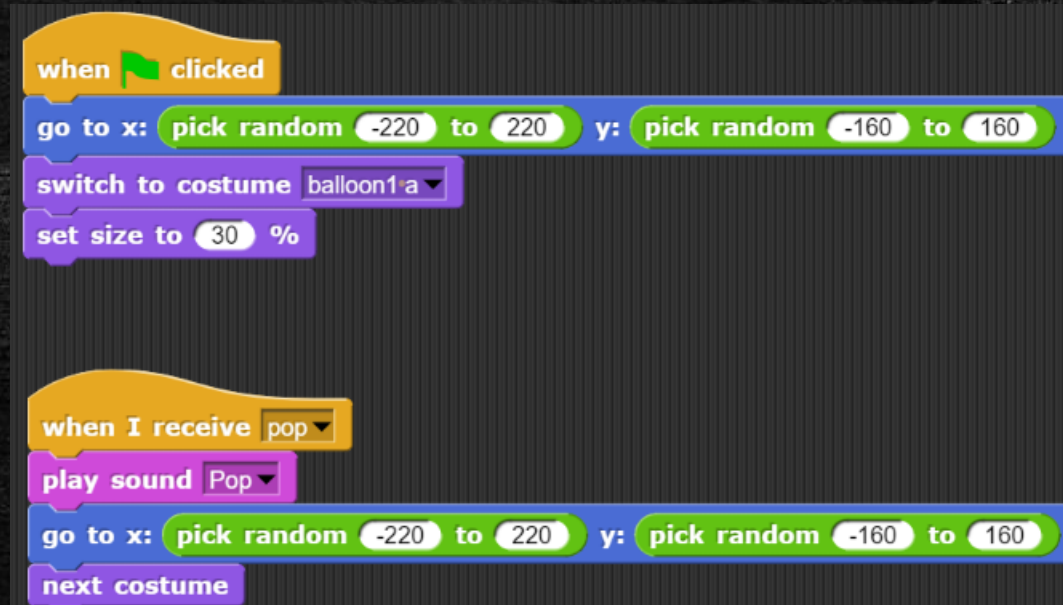
# Game 3 Exercise: Balloon Busting

Idea: Make a better balloon busting game

- Idea: Multiple balloons  
Description: Use more sprites
- Idea: make the balloon move  
Description: let the balloon move constantly and change direction randomly
- Idea: Add a bomb  
Description: if sprite hits bomb, wait 5 seconds
- ...



```
when clicked
go to x: 0 y: 0
point in direction 90
forever
  if key left arrow pressed?
    turn 2 degrees
  if key right arrow pressed?
    turn 2 degrees
  move 2 steps
  if on edge, bounce
  if touching balloon ?
    broadcast pop and wait
```



```
when clicked
go to x: pick random -220 to 220 y: pick random -160 to 160
switch to costume balloon1a
set size to 30 %

when I receive pop
play sound Pop
go to x: pick random -220 to 220 y: pick random -160 to 160
next costume
```



# Game 4: Car Race

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## Programming

- Variables
- Calculations

## Snap!

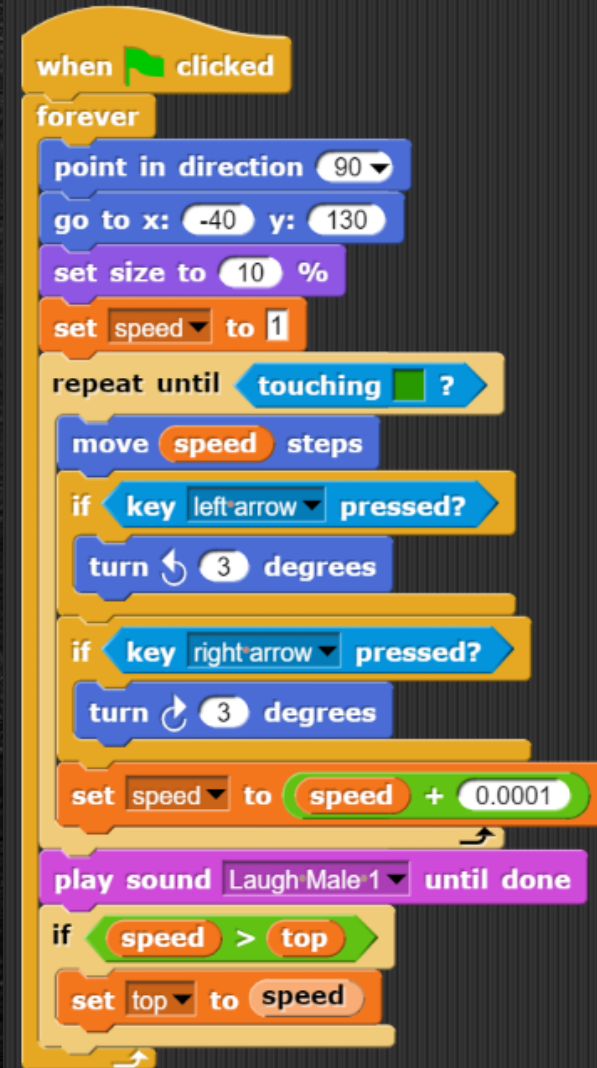
- Painting sprites and backgrounds
- React on color



# Game 4 Exercise: Make your own game

Combine everything you learned and make your own game!

- Idea: Movie with multiple scenes  
Description: script in stage changes backgrounds and uses broadcasts to trigger sprites
- Idea: Tennis  
Description: racket controlled by keyboard. Ball reflects on hitting wall and racket. If ball misses racket (check y coordinate), then game over. Count each hit. Make ball go faster each time.
- Or use your own idea!
- Show off on demo day!!!





# More information? Questions?

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This presentation and contact information are here:

<https://andreas-huppert.de/steam/ask/>

