Speed Code Team Challenge
[Stepmania Game]

Here are the simple rules for this Speed Code Team Challenge:

What you need:
- One booklet with code for each table.
- One pen for each table.
- One "Coding Checklist" for each table.
- Prerequisite variables (provided by Mentor) created in your scratch program.

How to play:
1. **Teams:** Everyone at your table is on the same team. To keep this fair, experienced coders (greater than white belt) may be separated and moved to other tables to help less experienced coders.

2. **One Booklet:** Each table will get ONE booklet with the code you need to make the "Stepmania" game. Only one booklet per table, so you'll need to share it nicely with your teammates. The pages of the booklet can be divided up and swopped between teammates to speed up the coding process.

3. **Your Task:** Each team member on your table needs to try and **complete** the program in the booklet.

4. **Work Together!:** You can talk to your teammates and help each other understand the code. But remember, **everyone has to write their own program on their own computer, remixing a completed program is not allowed!**

5. **First Table Wins!** The first table where **every single person** at the table has finished completing the code in the booklet wins the challenge! If at the end of the coder dojo session, no table has completely finished the challenge, the table where the most coding has being completed will be elected as the winning table! So make sure to update the "coding checklist" as you go along!

6. **Tell Your Mentor:** As soon as everyone at your table has finished, shout out to one of the CoderDojo mentors so they can check!

Important Things to Remember:
- Be fair, be patient and share the pages with each other as required.
- Update the "coding checklist" as you go along.
- Try your best to understand the code and complete it yourself, but remember it's okay to ask your teammates or a mentor for help if you're stuck.
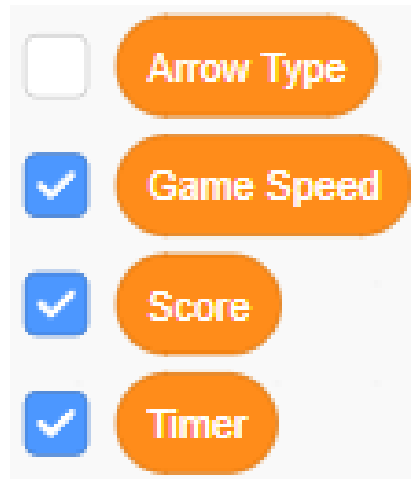- Have fun, work together and see how fast your team can code!

Good luck, coders!
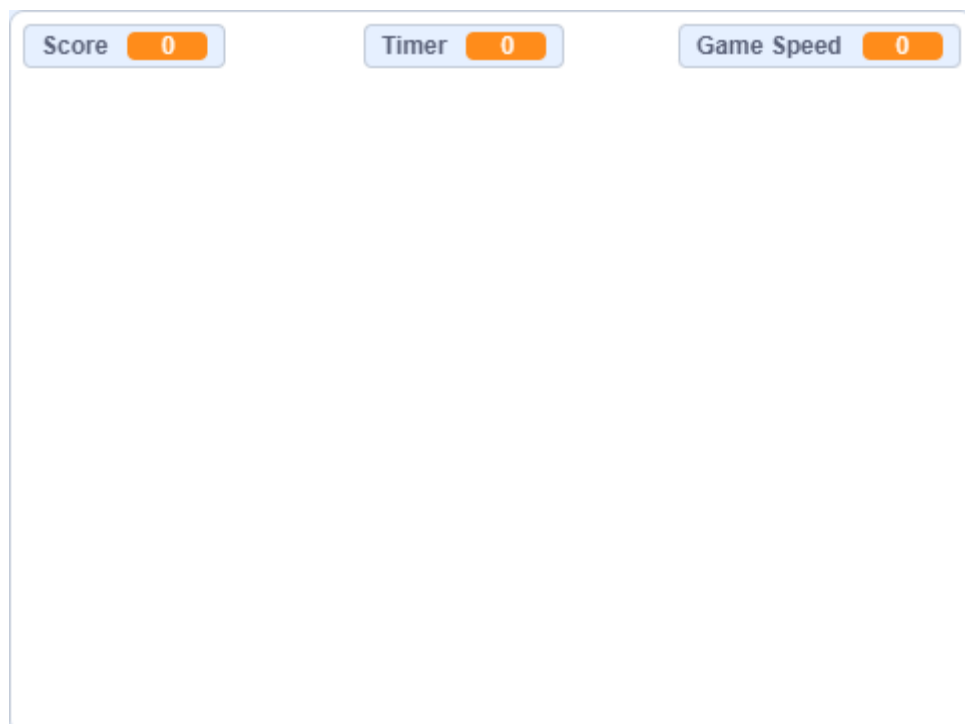
Speed Code Team Challenge
[STEPMANIA GAME]

Challenge Prerequisites

Everyone creates the following variables:

Position the variables so that "Score" is to the top-left side of the stage, "Timer" is in the top-middle of the stage, and "Game Speed" is to the top-right side of the stage.

Once the variables are created and positioned as required, delete "Sprite1" to be left with the stage looking as per below:

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Table Details

Table Number:

Team Name:

Coding Checklist

Teammate First Name	Page 1 Complete	Page 2 Complete	Page 3 Complete	Page 4 Complete	Page 5 Complete	Page 6 Complete
1.						
2.						
3.						
4.						
5.						
6.						

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Create 4 sprites with the following names:

- Up Arrow
- Down Arrow
- Left Arrow
- Right Arrow

Each sprite will have 2 costumes:

Up Arrow	Down Arrow	Left Arrow	Right Arrow
1 Up Arrow [Tr... 47 x 57 2 Up Arrow [C... 47 x 57	1 Down Arrow ... 47 x 57 2 Down Arrow ... 47 x 57	1 Left Arrow [T... 57 x 47 2 Left Arrow [C... 57 x 47	1 Right Arrow [... 57 x 47 2 Right Arrow [... 57 x 47
Costume Names: • Up Arrow [Transparent] • Up Arrow [Coloured]	Costume Names: • Down Arrow [Transparent] • Down Arrow [Coloured]	Costume Names: • Left Arrow [Transparent] • Left Arrow [Coloured]	Costume Names: • Right Arrow [Transparent] • Right Arrow [Coloured]

Note:
- The outline of the coloured arrows is not pure white, it is slightly off-white where "brightness" is set to 90.
- Direction of each sprite is set to "0" (pointing straight up) and locked so that the direction can't be changed.
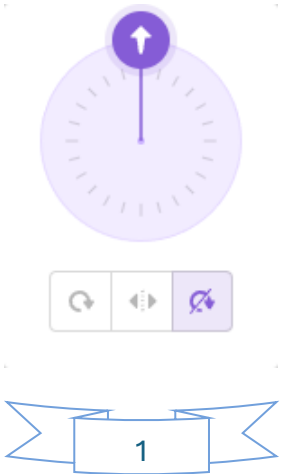
Speed Code Team Challenge
[STEPMANIA GAME]

Up Arrow Code

```
when [flag] clicked
switch costume to (Up Arrow [Transparent] v)
go to x: (-175) y: (100)

when I start as a clone
go to x: (-175) y: (-155)
switch costume to (Up Arrow [Coloured] v)
point in direction (0)
forever
    move (Game Speed) steps
    if < touching (edge v) ? > then
        delete this clone
    else
        if < < key (up arrow v) pressed? > and < touching color ( ) ? > > then
            change (Score v) by (1)
            play sound (Coin v) until done
            delete this clone
```

Up Arrow Attributes

Sprite	Up Arrow	↔ x	-175	↕ y	100
Show	⊙ ⌀	Size	100	Direction	0
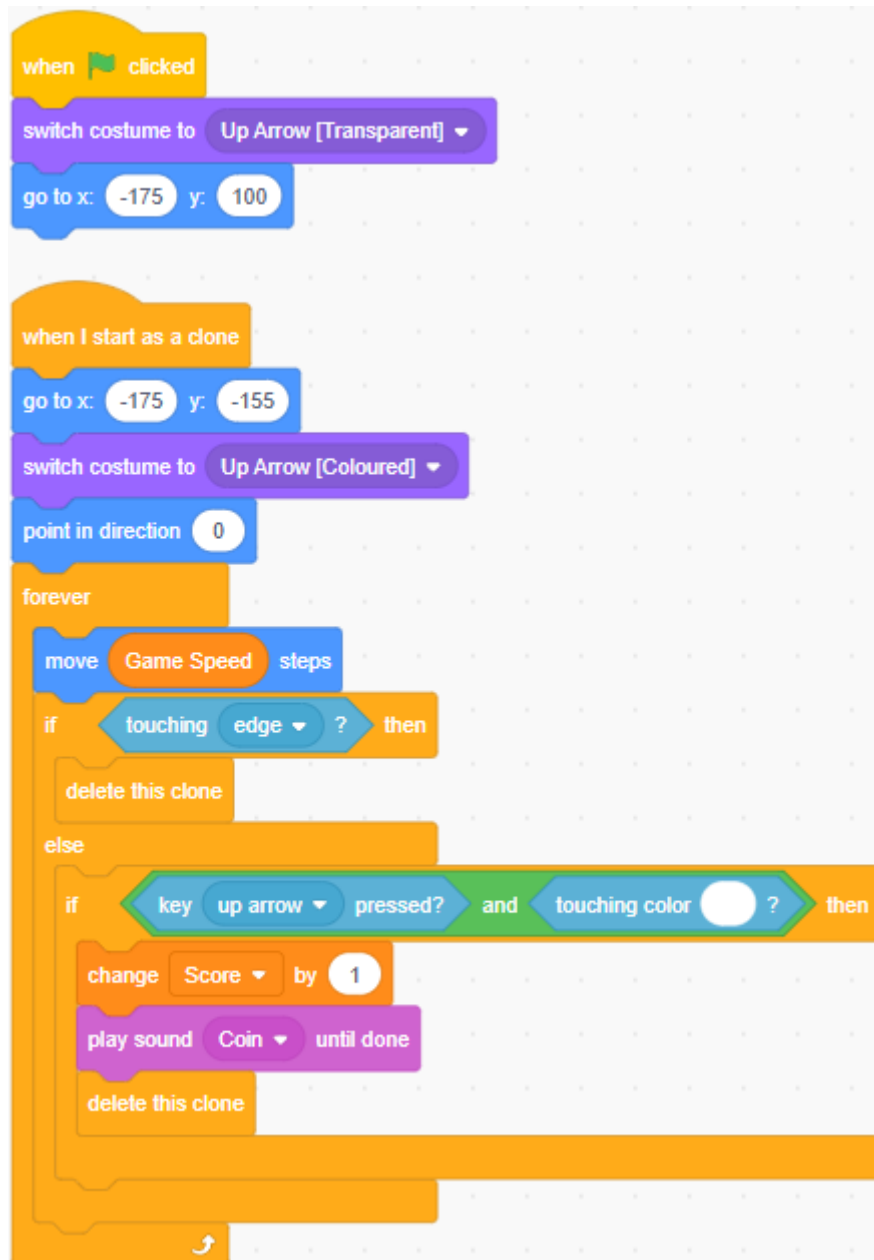
Speed Code Team Challenge
[STEPMANIA GAME]

Down Arrow Code

```
when [flag] clicked
switch costume to Down Arrow [Transparent] ▼
go to x: -50 y: 100

when I start as a clone
go to x: -50 y: -155
switch costume to Down Arrow [Coloured] ▼
point in direction 0
forever
    move Game Speed steps
    if < touching edge ▼ ? > then
        delete this clone
    else
        if < < key down arrow ▼ pressed? > and < touching color ( ) ? > > then
            change Score ▼ by 1
            play sound Coin ▼ until done
            delete this clone
```

Down Arrow Attributes

Sprite	Down Arrow	↔ x	-50	↕ y	100
Show	⊙ ⊘	Size	100	Direction	0
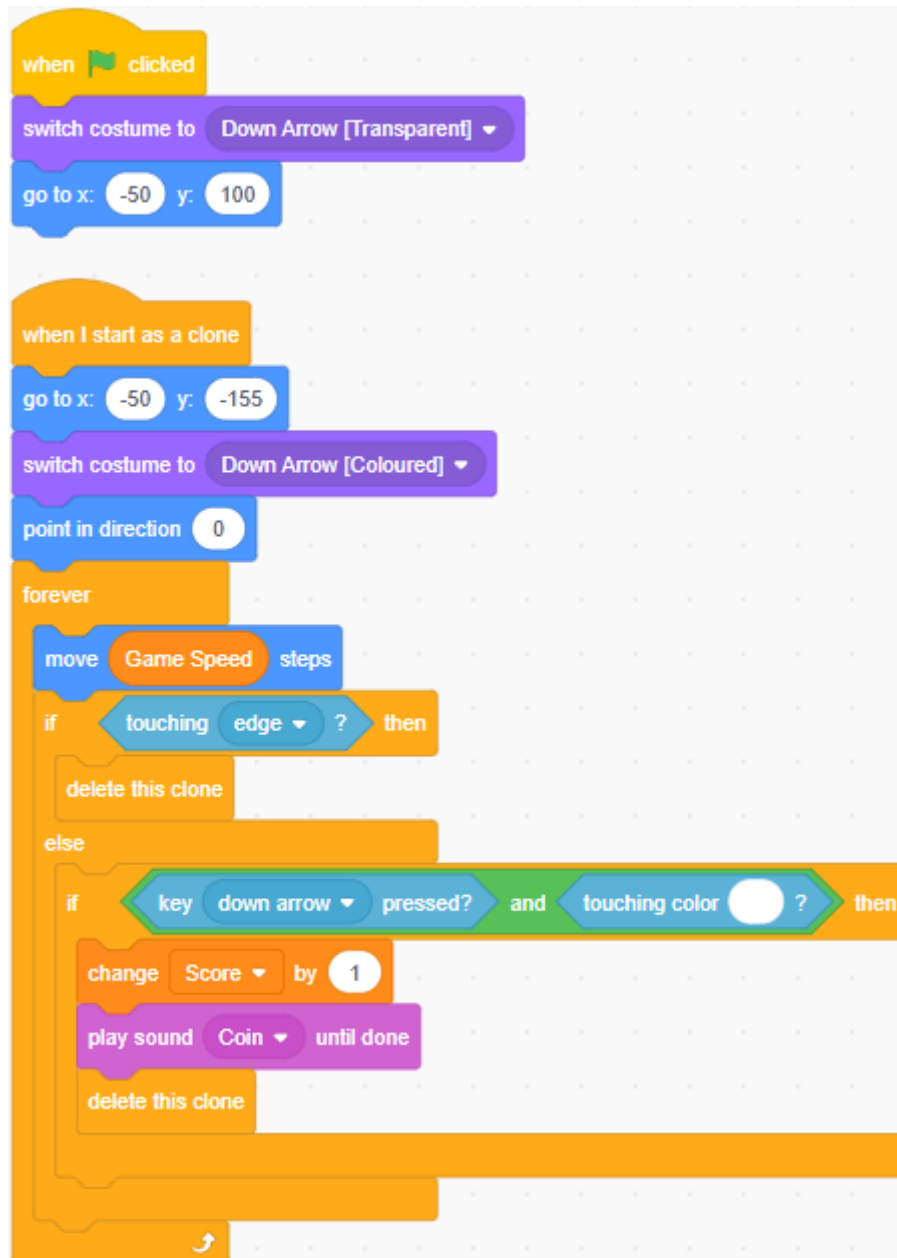
Speed Code Team Challenge
[STEPMANIA GAME]

Left Arrow Code

```
when 🏳 clicked
switch costume to [Left Arrow [Transparent] ▼]
go to x: 75 y: 100


when I start as a clone
go to x: 75 y: -155
switch costume to [Left Arrow [Coloured] ▼]
point in direction 0
forever
    move (Game Speed) steps
    if <touching [edge ▼] ?> then
        delete this clone
    else
        if <<key [left arrow ▼] pressed?> and <touching color ( ) ?>> then
            change [Score ▼] by 1
            play sound [Coin ▼] until done
            delete this clone
```

Left Arrow Attributes

Sprite	Left Arrow	↔ x	75	↕ y	100
Show	⊙ ∅	Size	100	Direction	0
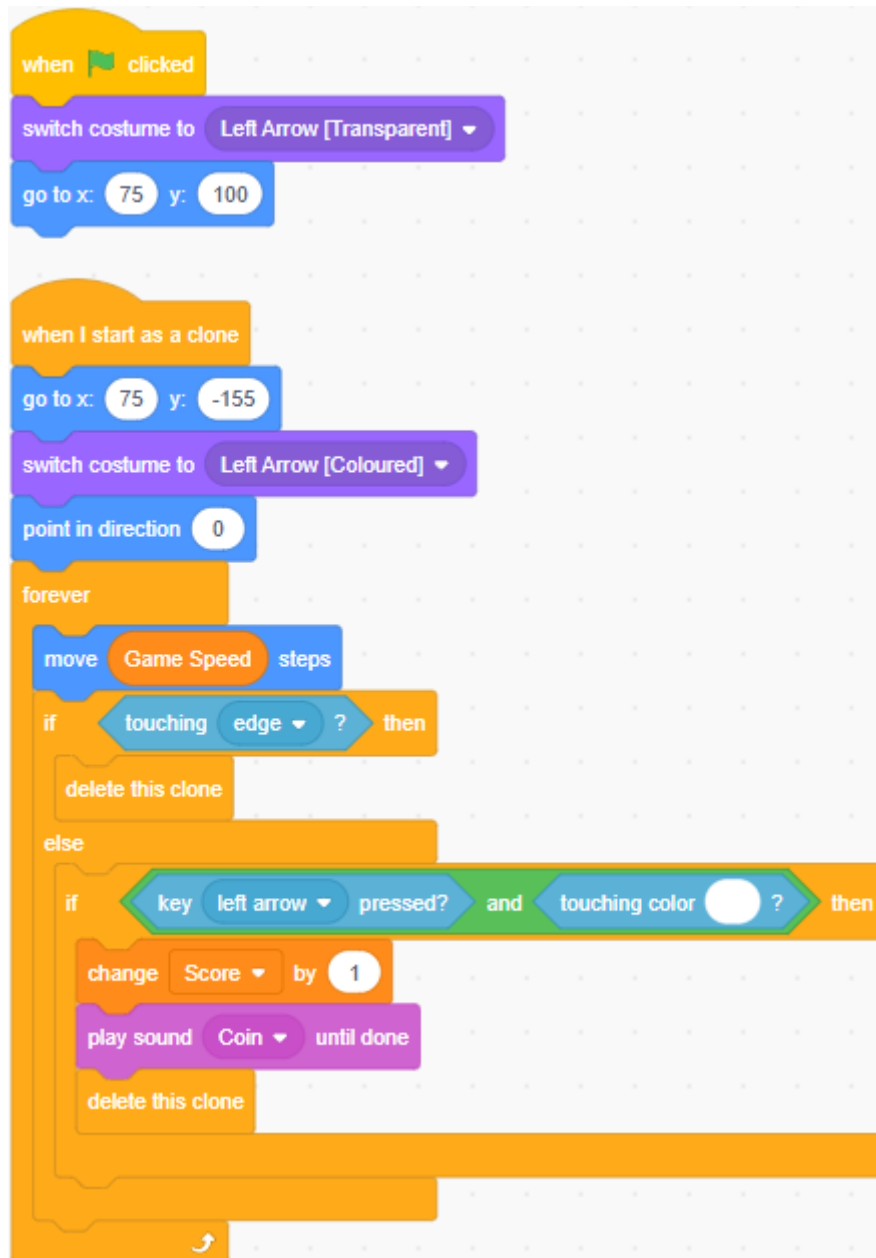
Speed Code Team Challenge
[STEPMANIA GAME]

Right Arrow Code

```
when 🏳 clicked
switch costume to Right Arrow [Transparent] ▾
go to x: 200 y: 100


when I start as a clone
go to x: 200 y: -155
switch costume to Right Arrow [Coloured] ▾
point in direction 0
forever
    move Game Speed steps
    if touching edge ? then
        delete this clone
    else
        if key right arrow ▾ pressed? and touching color ⬜ ? then
            change Score ▾ by 1
            play sound Coin ▾ until done
            delete this clone
```

Right Arrow Attributes

Sprite	Right Arrow	↔ x	200	↕ y	100
Show	⦿ ∅	Size	100	Direction	0
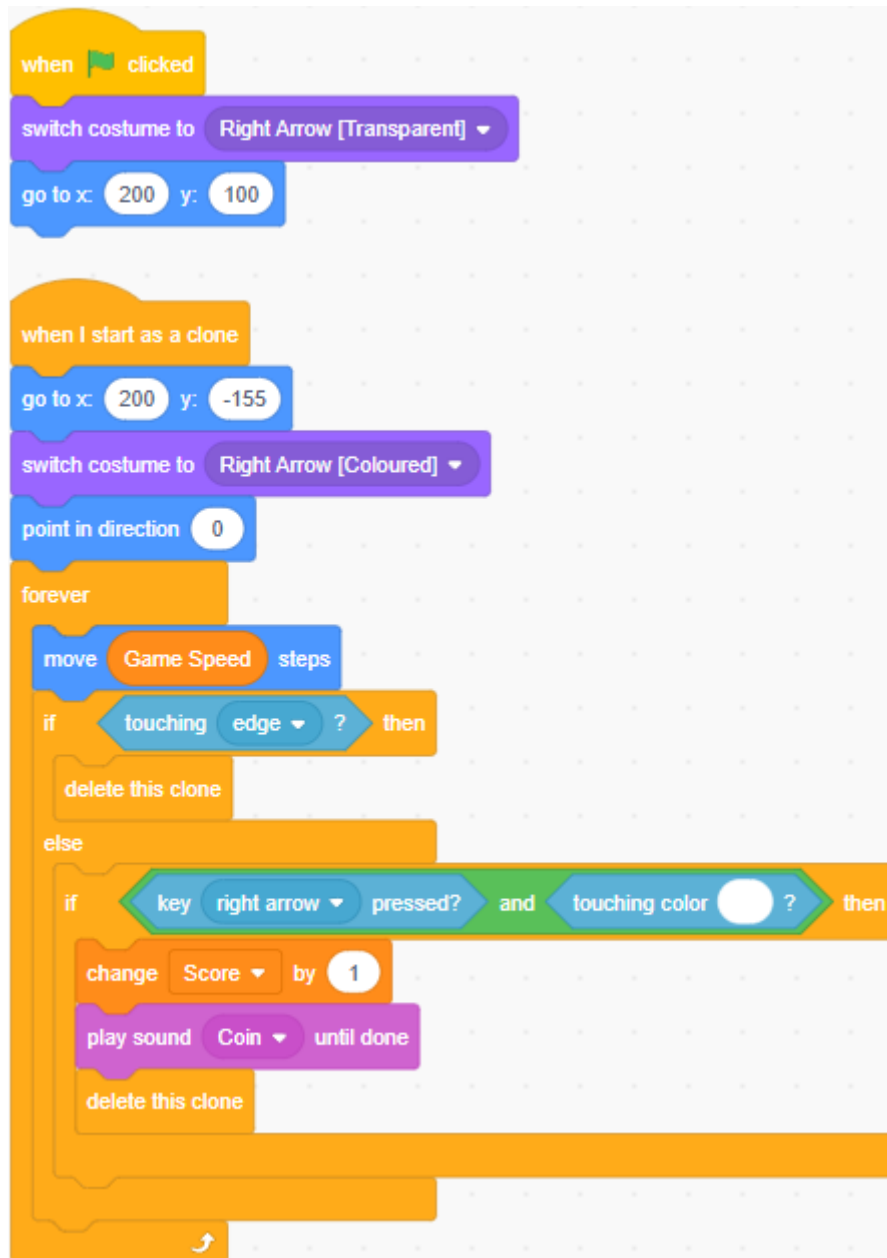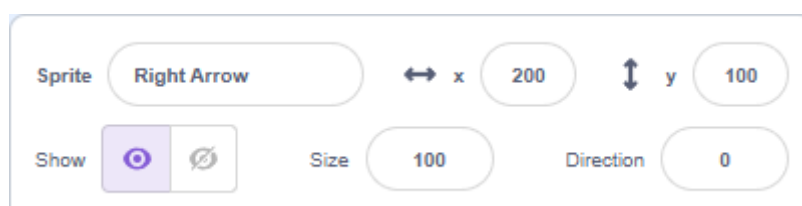
Speed Code Team Challenge
[STEPMANIA GAME]

Stage Code

```
when [flag] clicked
forever
  set [Arrow Type] to (pick random (1) to (4))
  if <(Arrow Type) = (1)> then
    create clone of [Up Arrow]
  if <(Arrow Type) = (2)> then
    create clone of [Down Arrow]
  if <(Arrow Type) = (3)> then
    create clone of [Left Arrow]
  if <(Arrow Type) = (4)> then
    create clone of [Right Arrow]
  wait (pick random (0.25) to (1.25)) seconds
```

```
when [flag] clicked
set [Game Speed] to (4)
forever
  if <(Score) = (15)> then
    set [Game Speed] to (6)
  if <(Score) = (30)> then
    set [Game Speed] to (8)
  if <(Score) = (45)> then
    set [Game Speed] to (10)
  if <(Score) = (60)> then
    set [Game Speed] to (12)
```

```
when [flag] clicked
set [Timer] to (60)
repeat (60)
  wait (1) seconds
  change [Timer] by (-1)
stop [all]
```

```
when [flag] clicked
set [Score] to (0)
```

```
when [flag] clicked
forever
  set volume to (40) %
  play sound [Dance Energetic] until done
```

Stage Design

Score 78   Timer 0   Game Speed 12

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