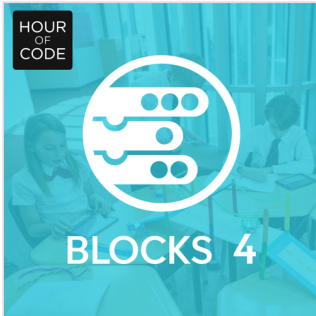


## Blocks 4 : Variables



Use variables to build a hot potato game powered by Sphero. You will also learn about loop until, and randomness within bounds to bring this classic game to life. This is a great activity after you complete Blocks 3, and can be used for the "Hour of Code."

**Tags:** coding variables loop until randomization block coding  
hour of code

**Grades:** 2 to 11 | **Duration:** Up To 1 Hour

### Step #1: Setup

1. Charge your robot.
2. Download and sign in to the app.
3. Complete or answer the questions for each step.

### Step #2: Introduction

Review the concepts you will use in this activity.

**YouTube video:** <https://youtu.be/bjhtQ6VAB7k>

### Step #3: Setup & Create Variables

Create your first variables and learn how they will interact with each other to power the game.

**YouTube video:** [https://youtu.be/mP38NjN8\\_fA](https://youtu.be/mP38NjN8_fA)

## Step #4: Randomness & Loop Until

Use randomness to make the game unpredictable, and loop until to repeat the game logic until the toss variable is greater than the expire variable.

**YouTube video:** <https://youtu.be/jb1aEOOnLpQ>

## Step #5: If Tossed

Create an if/then statement to indicate a toss occurred.

**YouTube video:** <https://youtu.be/VjXT3t8Abh8>

## Step #6: Condition Reached

When the toss variable is greater than the expire variable, you need to communicate that the player holding Sphero is OUT.

**YouTube video:** <https://youtu.be/B8-Riur2Vbw>

## Step #7: Play The Game

Play the hot potato game with a group of friends!

**YouTube video:** <https://youtu.be/xPp7Ac0jTlw>

