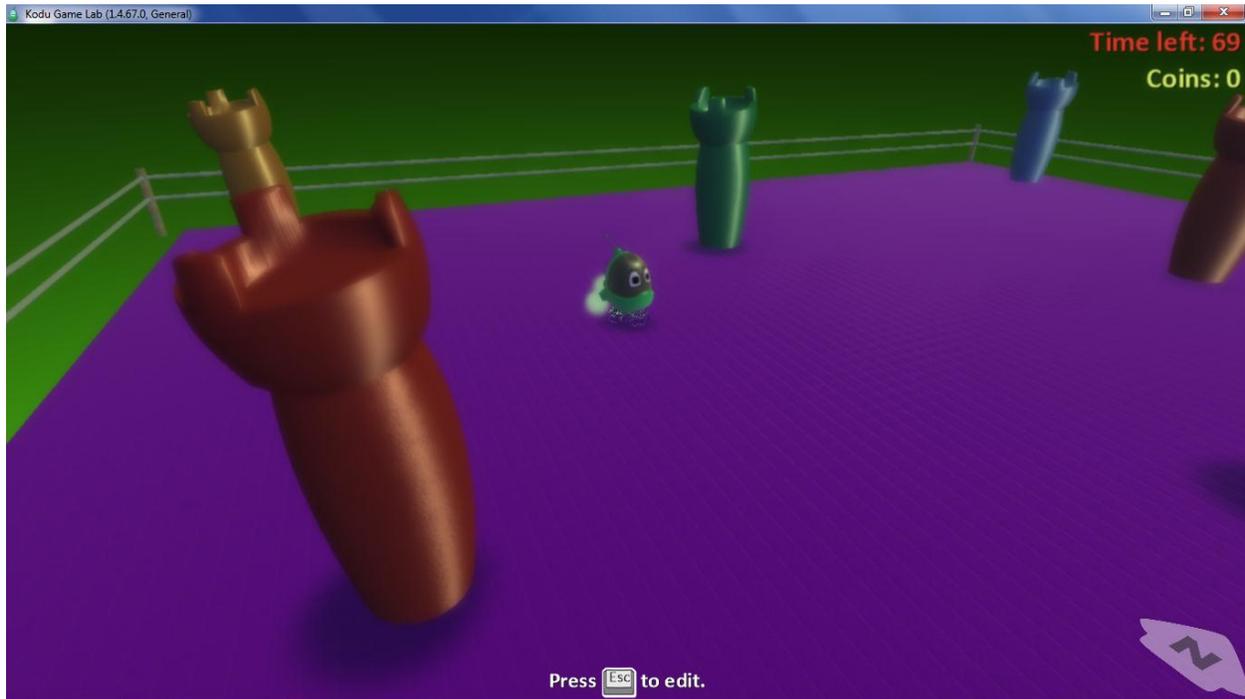


## Module 4: Castles1 World

Version of July 8, 2015



Check off each step below as you complete it:

1. Load and run the “Castles1” world. There are castles of different colors. Nothing is happening.
2. If the kodu gets close to a castle, the castle will shrink and may also spit out a coin. The castle will stay shrunken and not produce any more coins until the kodu goes away. You can test this by writing a pursue rule to take the kodu to the nearest castle. Try it.
3. Add pursue and consume rules to have the kodu chase down and eat the coin. Should these rules come before or after the rule that takes the kodu to a castle? Does it make a difference?
4. Once the kodu gets its coin it will go back to the nearest castle, but if this castle has already shrunk, it won’t yield any more coins, and the kodu will be stuck there until the game ends.
5. There is no way to tell the kodu to only go to full-size castles, but there is another strategy we can use to avoid getting stuck.
6. Instead of moving to a castle, we can tell the kodu to move randomly by using “move wander” instead of “move toward”. (The WHEN part of the rule should be empty.) It will then randomly bump into castles, some of which will spit out coins which the kodu can chase down.
7. Run the program and see how many coins the kodu can collect by wandering randomly.
8. Examine the Default Value flash card. Is the “move wander” rule a default rule? Let’s see:
  - a. Does the action conflict with another rule’s action? Which one? \_\_\_\_\_
  - b. Does the rule have an empty WHEN part? \_\_\_\_\_
  - c. Does the rule appear *after* the rules it conflicts with? \_\_\_\_\_
  - d. Is this program an example of the Default Value idiom? \_\_\_\_\_
  - e. What is the default value? \_\_\_\_\_