

Kodu – Reaching For the Stars Part 2

In this tutorial you will be learning how to program objects to make *creatables*. You will also learn how to add and identify specific *Kodu Kode* as *variables* that change the probability of an outcome. This will help you as you begin to create your games on your own.



1. Launch Kodu
2. Click on *LOAD WORLD*



Select *Reaching For Stars* by either going to *My Worlds* or scrolling through to find it.

3. Now go to your *Object Tool*, select Kodu and click on your canvas.
4. Right click on Kodu and select *Program*. Next program Kodu to *always move* by *wandering*:



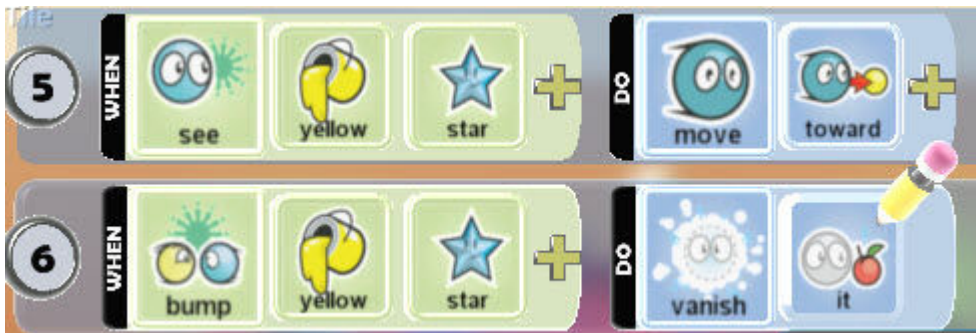
- On the *line 2*, tell Kodu that when he *sees* the *black star* to *move towards* it *quickly*. On *line 3* tell Kodu to *bump* into that *black star* and *vanish it*. The *kode* should look like this:



- In addition to Kodu vanishing the star when he bumps into it, on *line 4* add that you when he *bumps* into the *black star* the game adds one *black point* to the *score*. Make sure to indent line 4 so that it is does it *addition* to vanishing the star:



- Repeat the above programming, but for the *yellow star* on lines 5, 6, and 7 remembering to indent line 7 so that the *star vanishes* and *scores 1 point*:



8. Lastly, set a timer for your game to *end* after *60 seconds*:



9. Now, *Play* the game a *measurable* amount of times and record the outcomes. Determine the probabilities of the yellow and black scores for this game.

Next, let's learn about how some of the code changes the outcomes by adding various variables. **Follow the next steps for an example.**

10. After determining the probability for the outcome of this game, add a variable to line 5's code. Command Kodu that when he *sees* a *yellow star close by*, *move towards* it *quickly*:



11. Play the game a measurable amount of times and record the outcomes. Determine the probability of the yellow and black scores for this game. Determine if by adding *close by* to your code affects the outcome of the score (dependent or independent variable).

Has it changed the outcome of the score? What other variables in the programming could you add or subtract to make one score most likely to be higher than the other? What would happen if you added a third score that subtracted points in some way?