

Events and Handlers

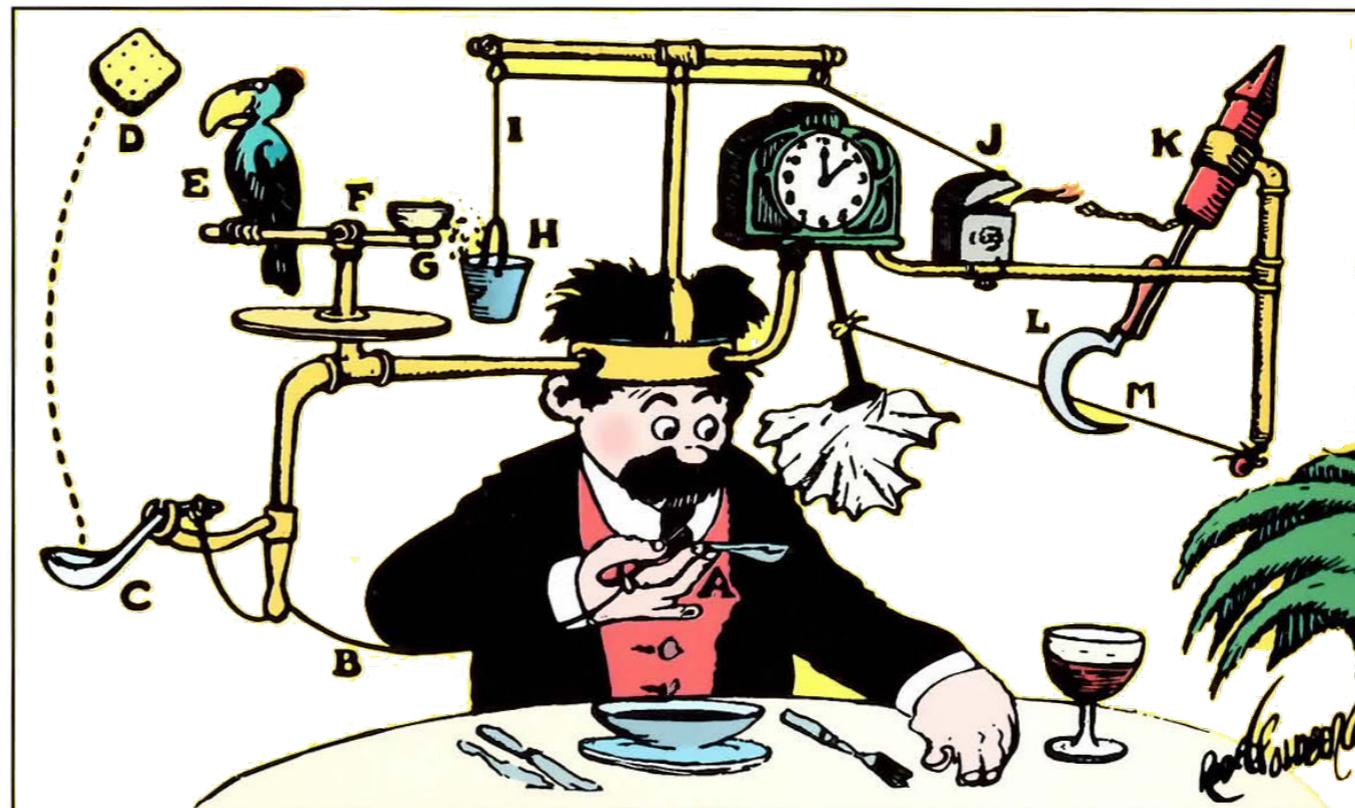
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In this chapter, you'll learn about handling events as they're triggered. Events are useful because you don't have to wait for a specific action to occur. You can be doing other things, and interrupt those things with a sequence of events only when you have a reason. There are many ways to trigger an event. A user might touch a screen, or the microphone might detect sound. As you learn more about events and event handlers, you'll probably notice the strong relationship between events and the device sensors that detect them.

Explore events in your world

Think of times you've experienced events—the kinds of events where you're going about your day and something interrupts you. Maybe someone calls your name from another room. You stop what you're doing to see what they want. Or perhaps you're doing the dishes, and a timer goes off to let you know your food is ready. An event is a time when you could be doing something, but your attention is called away by a trigger.

Learn more: rubegoldberg.com



Activity: Rube Goldberg and Designing an Event-Driven System

Rube Goldberg was a cartoon artist who created drawings of very complicated machines doing very simple things—things that would be much easier to do the traditional way. For example, one of his most famous works was an illustration of a self-operating napkin. So a Rube Goldberg machine is a silly device that allows complex behaviors from a rather simple input.

The main characteristic of Rube Goldberg machines is that they're driven by events. Look at the absurdly complex self-operating napkin. You can see a string attached to the character's arm. Raising the arm to use the spoon sets off a series of actions, and once all those actions play out, the napkin lifts to wipe the chin. The important factor is the moment when the person lifts the arm. This sequence doesn't exist in a loop that constantly checks whether the arm is raised—it springs to action only when the person brings the spoon to the mouth. This is a classic event-driven Rube Goldberg machine.

1. Design your own Rube Goldberg machine. The key is that the sequence must have a trigger event that starts the machine's entire process.
2. Draw it on paper, or go deeper and illustrate it in Keynote, where you can animate the sequence.
3. Share it with others.

