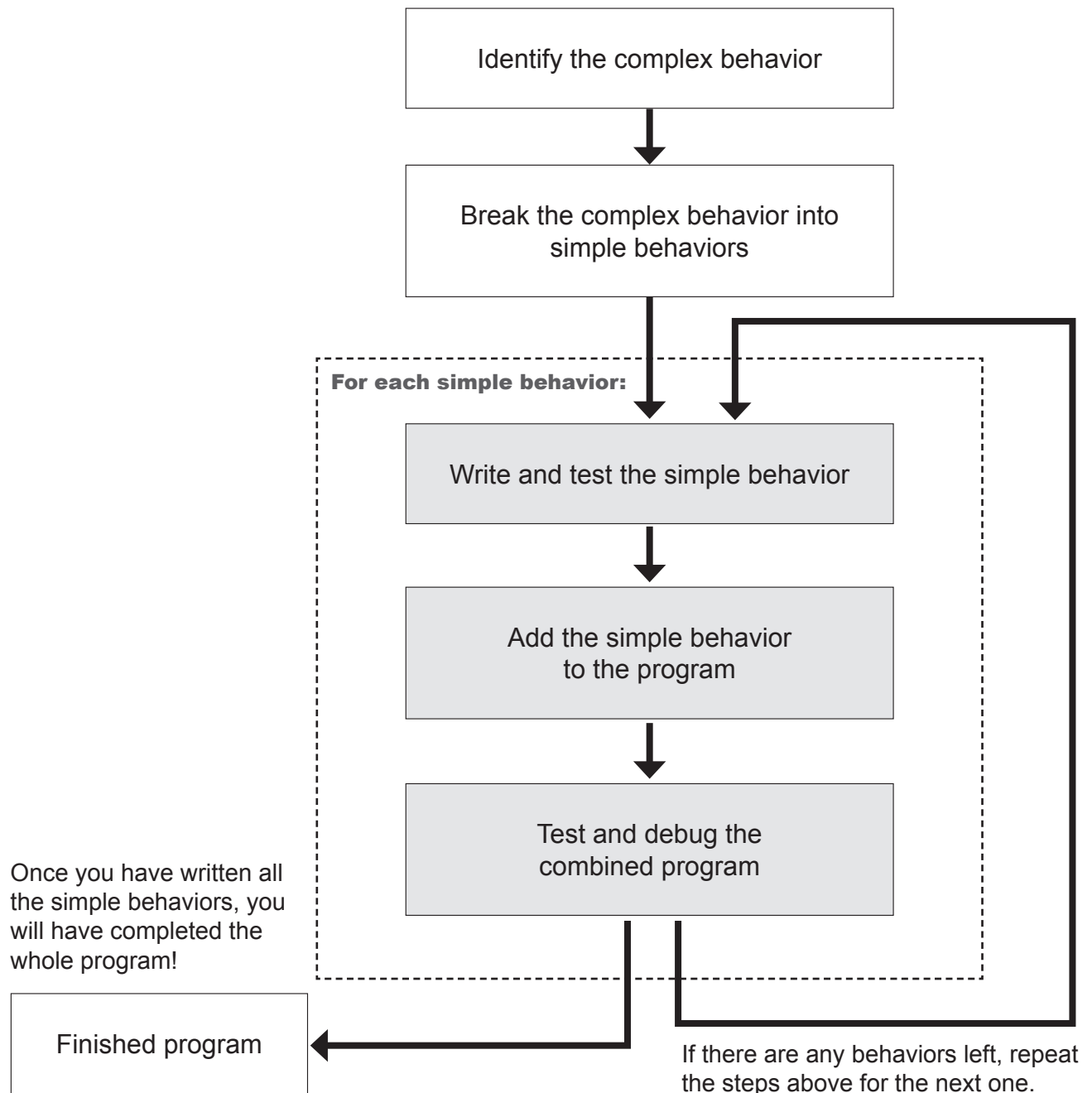


Problem Solving with Programming

Think Before You Code

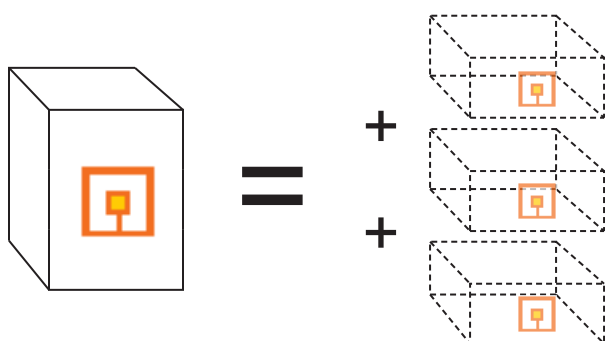
The easiest way to write a complex program is to break the complex behavior into smaller, simpler behaviors and write the simple behaviors one at a time, piecing them back together as you go.



NAME

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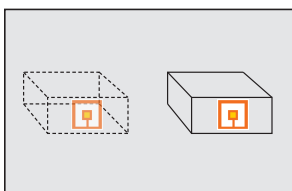


Break the behavior into simpler ones

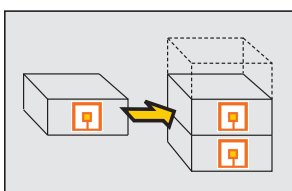
Look carefully at the structure of the problem. Try to identify good places to divide the task into parts. Break up long procedures and establish sub-goals where possible.

A large programming behavior will almost always break down into small, recognizable ones.

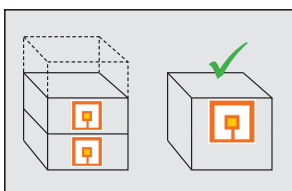
For each simple behavior:



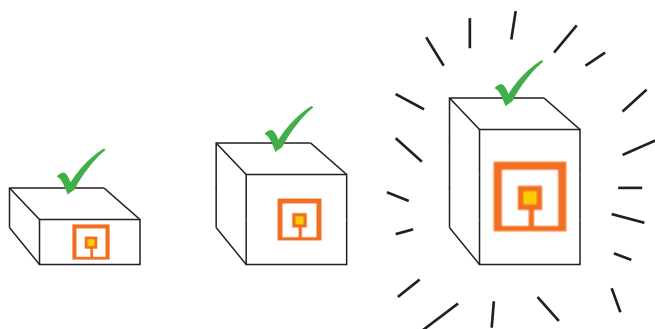
Write and test the simple behavior. Choose behaviors you already know or can easily adapt from ones you are familiar with. Test the behavior to make sure it works on its own.



Add the simple behavior to the program. Add the behavior you just wrote into the appropriate place in the program.



Test and debug the combined program. Make sure your behavior functions as intended within the program. Many times, you will need to adjust it to compensate for the robot's orientation, momentum, or other unforeseen factors.



Iterate

Repeat the procedure for each simple behavior that you identified. Build each behavior onto the previous ones, and you will soon have a complete, working solution!

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