

MILESTONE 5 – REPORT

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For this Milestone, the greatest changes involved applying the use of interfaces to segregate abstractions and the addition of 2 design patterns to extend the basic robot turtle game. I used the strategy pattern on Moves within Turtles to allow the Turtle to execute them all regardless of actual object type. This increases flexibility if More moves need to be added and applies the single responsibility principle by extracting the moves from the object they act on. In addition, I used the visitor design pattern to allow Movable to set the rules in response to each different visited tile type.

The most involved object in the design is the turtle tile as it implements various interfaces like Player, Orientable, Teleportable, and Pusher. With each of those interfaces allowing for the expansion of their ideas by other possible tiles without requiring the addition of new logic.