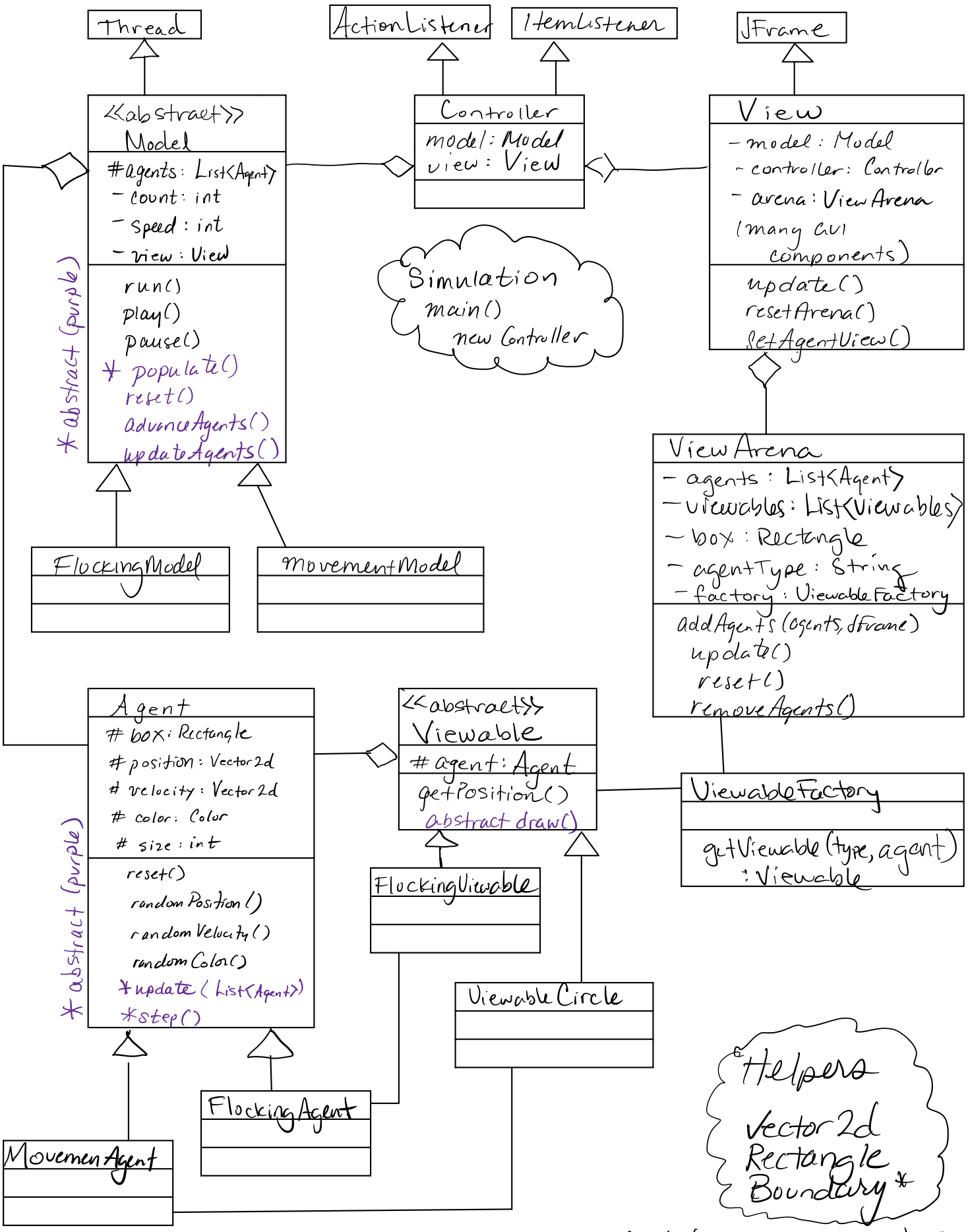
Thread
ActionListener
ItemListener
JFrame
<<abstract>>
Model
#agents: List<Agent>
- count: int
- speed: int
- view: View
run()
play()
pause()
* populate()
reset()
advanceAgents()
updateAgents()
* abstract (purple)
Controller
model: Model
view: View
View
- model: Model
- controller: Controller
- arena: ViewArena
(many GUI components)
update()
resetArena()
setAgentView()
Simulation
main()
new Controller
ViewArena
- agents: List<Agent>
- viewables: List<Viewables>
- box: Rectangle
- agentType: String
- factory: ViewableFactory
addAgents(agents, jFrame)
update()
reset()
removeAgents()
FlockingModel
MovementModel
Agent
# box: Rectangle
# position: Vector2d
# velocity: Vector2d
# color: Color
# size: int
reset()
randomPosition()
randomVelocity()
randomColor()
* update(List<Agent>)
* step()
* abstract (purple)
<<abstract>>
Viewable
# agent: Agent
getPosition()
abstract draw()
ViewableFactory
getViewable(type, agent) : Viewable
FlockingViewable
ViewableCircle
FlockingAgent
MovemenAgent
Helpers
Vector2d
Rectangle
Boundary *
* defines areas in graphics windows