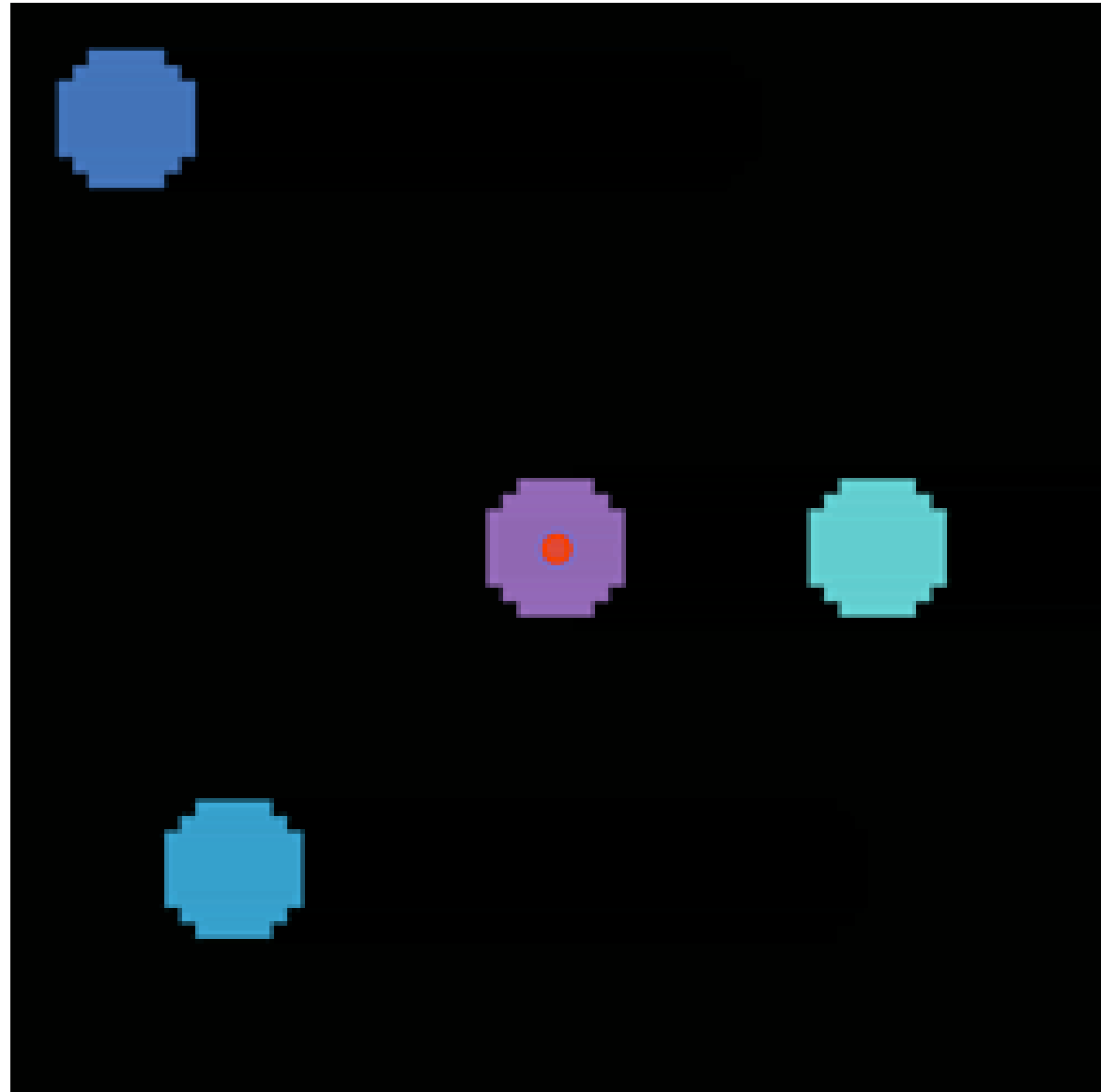


OOD Example

Karsten Droste

Ant Foraging



Objects

Ant

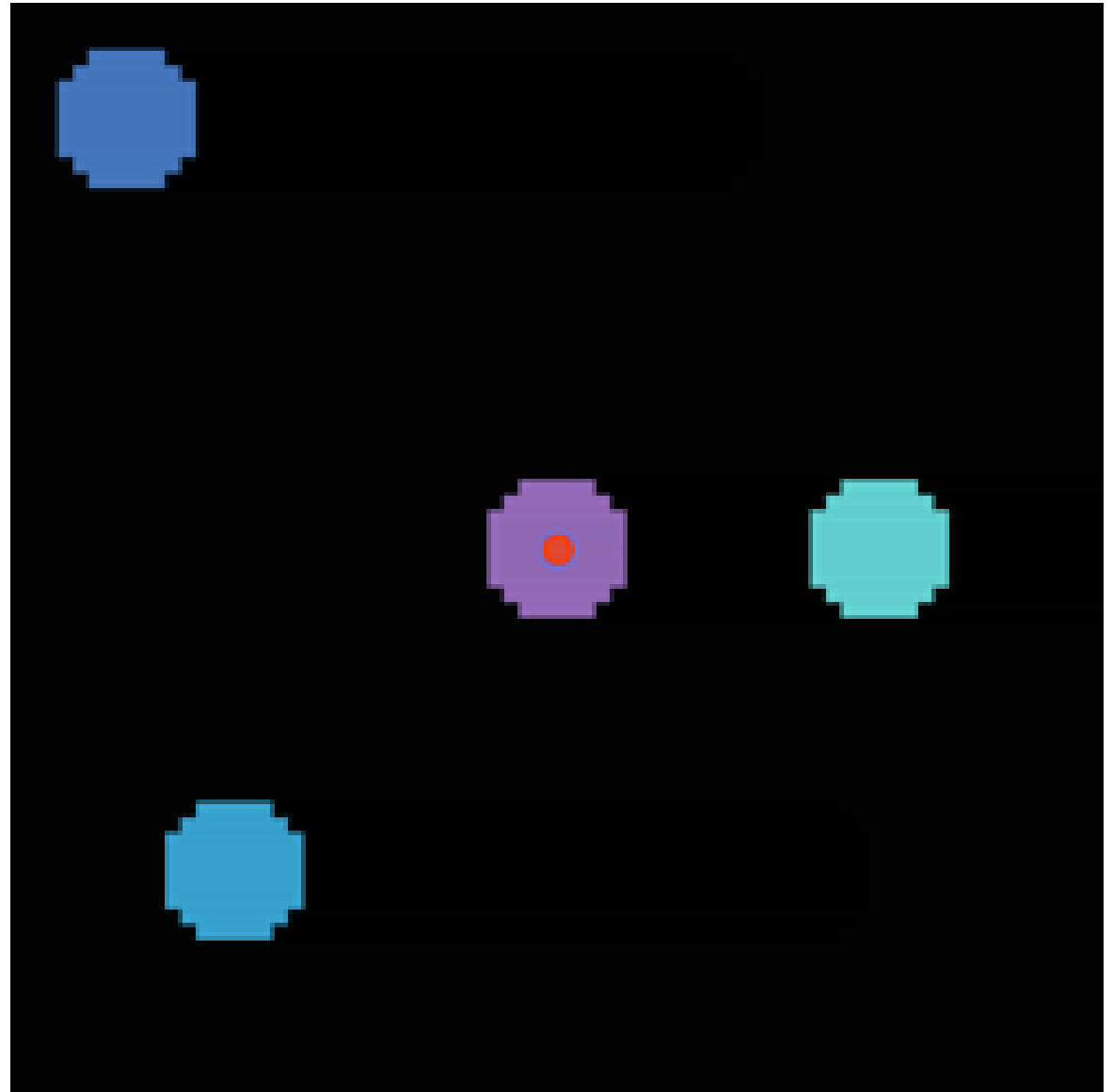
Field

Food Patch

Nest Patch

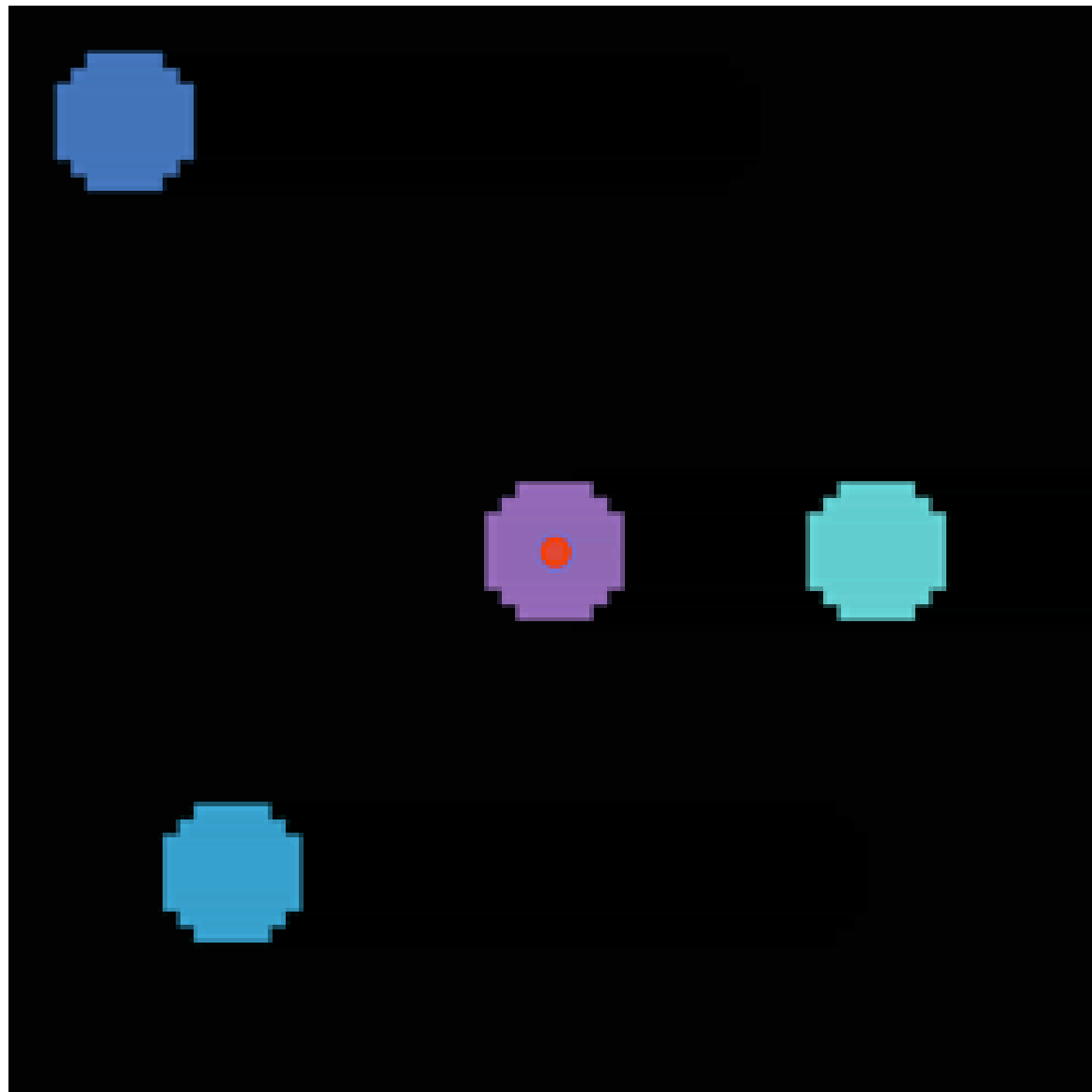
Food Pheromone

Nest Pheromone



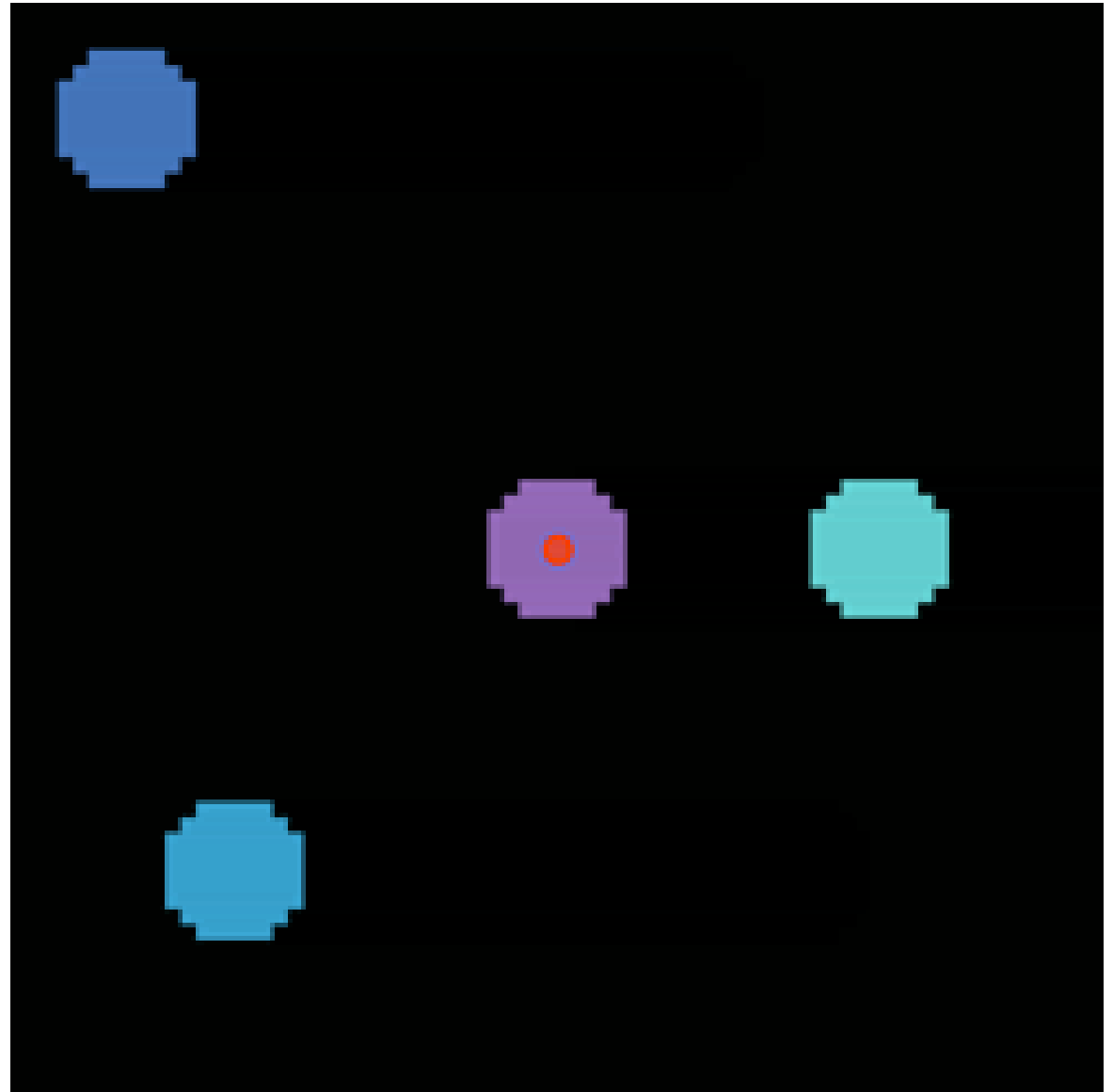
Ant Responsibilities

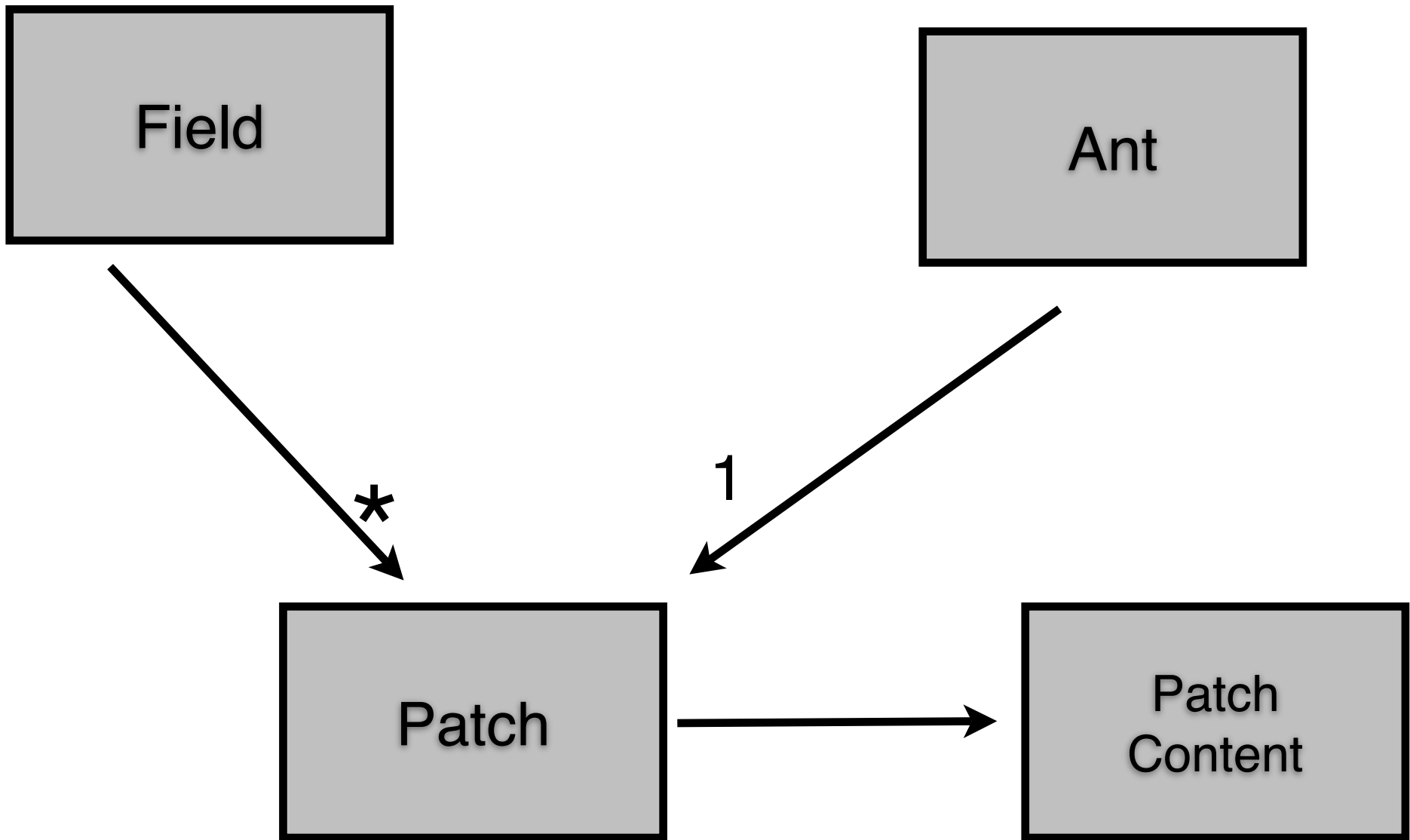
walkRandomly
isDetecting
takeFood
dropFood
followPheromone(p)
...

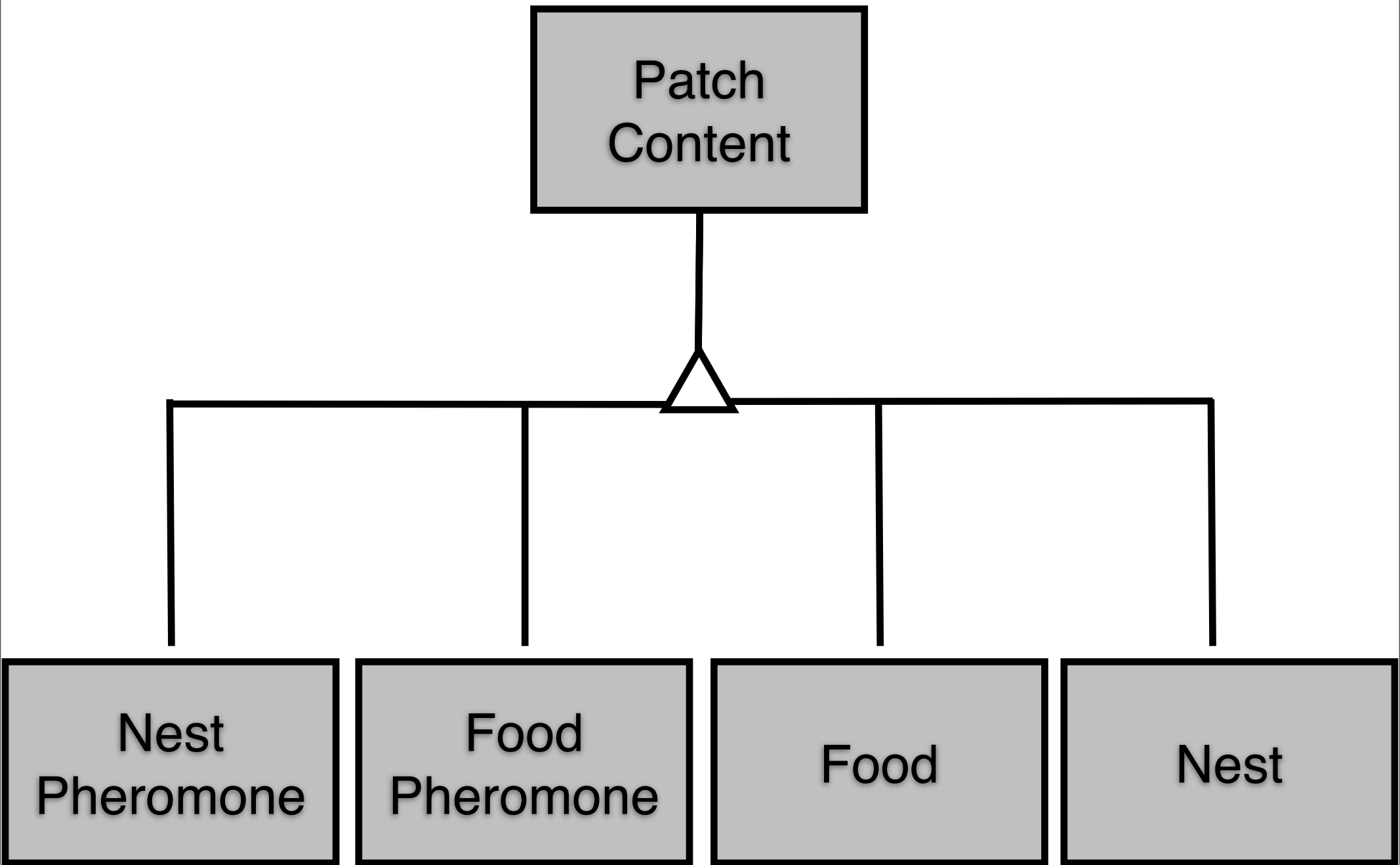


Field / Patch Responsibilities

spreadPheromone
takePheromone
takeFood
dropFood
setupNest
setupFood
...

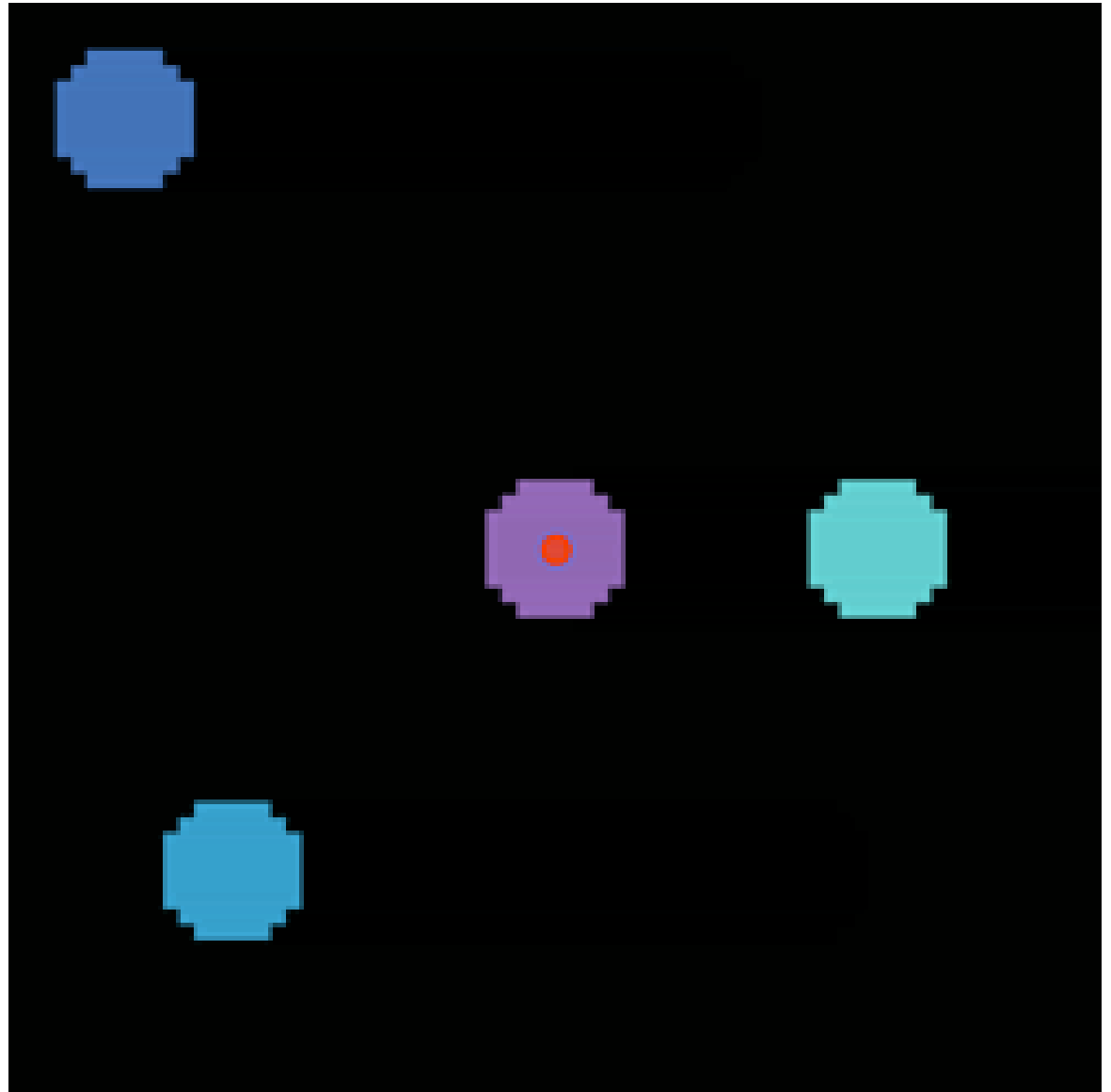






Ant Behaviour First Approach WITH ERRORS as Pseudocode

```
if isCarringFood()  
  followPheromone(nestPheromone)  
else  
  if isDetecting(FoodPheromone)  
    followPheromone(foodPheromone)  
  else if isDetecting(Food)  
    takeFood()  
  else walkRandomly()
```



5

seconds of fame

homework

I.Design Correct Ant Behaviour