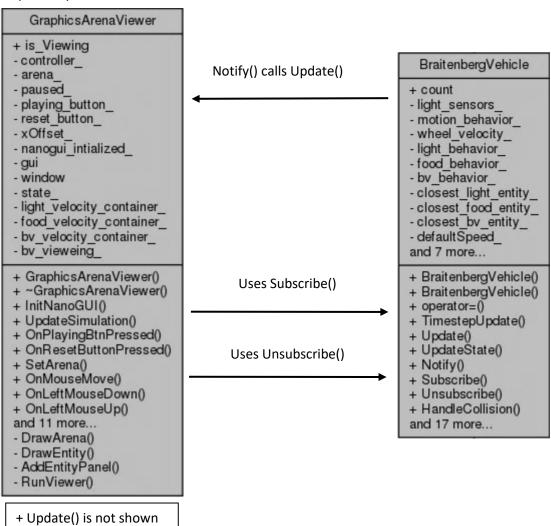
Iteration 2 Preliminary 2

Doxy Generated UML for Observer Pattern

My implementation of the Observer pattern involved adding necessary methods and elements to the BraiternbergVehicle and GraphicsArenaViewer classes in order to make them a Subject and Observer respectively.



Coode Snippet of GraphicArenaViewer's Update Method

```
void GraphicsArenaViewer::Update(const State& state){
//setting GAV's state variable
  state_.light_1 = state.light_1;
state_.light_r = state.light_r;
  state_.food_1 = state.food_1;
state_.food_r = state.food_r;
  state_.bv_1 = state.bv_1;
 state_.bv_r = state.bv_r;
//Converting state values
  std::stringstream 11;
11 << std::setprecision(2) << state_.light_1;</pre>
  std::stringstream lr;
lr << std::setprecision(2) << state_.light_r;</pre>
  std::stringstream fl;
f1 << std::setprecision(2) << state_.food_1;</pre>
  std::stringstream fr;
fr << std::setprecision(2) << state_.food_r;</pre>
  std::stringstream bl;
  bl << std::setprecision(2) << state_.bv_l;</pre>
  std::stringstream br;
  br << std::setprecision(2) << state_.bv_r;</pre>
//setting values displayed on GUI
  light_velocity_container_[0]->setValue(std::string (11.str()));
light_velocity_container_[1]->setValue(std::string (lr.str()));
  food_velocity_container_[0]->setValue(std::string (fl.str()));
food_velocity_container_[1]->setValue(std::string (fr.str()));
  bv_velocity_container_[0]->setValue(std::string (bl.str()));
  bv_velocity_container_[1]->setValue(std::string (br.str()));
}
```

Coode Snippet of BraitenbergVehicle's Notify Method

```
void BraitenbergVehicle::Notify(){
  for (auto obs : observers_) {
    obs->Update(state_);
  }
}
```

Doxy Generated UML for Predator Class

BraitenbergVehicle

- + count
- light_sensors
- motion_behavior_
- wheel_velocity_
- light behavior
- food behavior
- bv_behavior
- closest_light_entity_
- closest_food_entity_
- closest_bv_entity_
- defaultSpeed
- and 7 more...
- + BraitenbergVehicle()
- + BraitenbergVehicle()
- + operator=()
- + TimestepUpdate()
- + Update()
- + UpdateState()
- + Notify()
- + Subscribe()
- + Unsubscribe()
- + HandleCollision()

and 17 more...



Predator

- + count
- light sensors
- motion_behavior_
- wheel_velocity_
- light behavior
- food behavior
- by behavior
- closest_light_entity_ closest_food_entity_

- closest_bv_entity_ defaultSpeed_
- and 6 more...
- + Predator()
- + ~Predator()
- + Predator()
- + operator=()
- + HandleCollision()
- + get_name()