# Code Evaluation

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| Code | Comment | Reporter |
| Within OrganismBrain.cs | Within OnCollisionStay(Collision collision) method hunger is incremented as “hunger++” whereas elsewhere it is incremented using the increment function “hunger = increment(hunger, -1);” – this is inconsistent | Andy |
|  | Hunger variable is decremented in one place, incremented in another however there is only a bounding check made on the upper value. Ie hunger is tested for a value > 100 but no such check is made for the lower bound. | Andy |
|  | Food is modified within OrganismBrain.cs (OnCollisionStay(Collision collision)) whereas this should call a food.method to reduce food and not access a variable publicly. OOPs Principles. collision.gameObject.GetComponentInParent<food>().foodAmount--; should call a food accessor to modify variables | Andy |
| Food.cs | public float foodAmount; should be private. An accessor method should be used to alter this variable | Andy |
| CameraFollows.cs | Public vector3 offset; and Public Transform player; both should be private and accessed via methods as per OOPs principles | Andy |
| Hunger / hungry | This appears to only be dependent upon time. As creatures move they should use energy at a rate set by their movement. Ie, standing still uses little energy, moving slow uses more, moving fast uses even more. Needs to mimic real life energy flow . How hungry they are depends on how much energy they have used. | Andy |
| Creature Movement | <https://scratch.mit.edu/projects/369453344/fullscreen/> as can be seen in the prototype creatures don’t just stop when they have something in front of them they try other directions. The are simple so if their path is blocked they can try moving in a random direction. For example if they are heading toward food and something is in their path they don’t just stop, they will move back, or up or down for a short period before then heading toward food gain. Remember this maybe a game but it is educational and a study of simple rules / simple creatures as as such is also a simulation played over time to see behaviour. | Andy |
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