**IT-326: Introduction to Artificial Intelligence – Angry Birds**

**Week 2 –Submission**

**Team : Finishers**

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**GENERAL OUTLINE OF THE STRATEGY:**

We are trying to stick to some basic strategies initially and we will be building upon these further, and also make changes if we fail significantly. This is a tentative strategy for the time being.

* Trying to visualize the whole structure and recording the positions of various different kinds of objects like stones, wooden slates, ice slates, and obviously pigs.
* For the time being, keep hitting the top most pig with highest angle as done previously.
* If more than one pigs are present at the same highest height, then hit the left most pig out of them. Reason being that it can produce more destruction because of its momentum (in some cases at least).
* While hitting each pig choose an angle and velocity which gives maximum destruction. We will be writing some routines for finding the same by assigning appropriate destruction factors for the particular path chosen.
* We will be trying to target the block sitting below the pigs, as it can be used to undermine the structure supporting the pigs.
* Another thing observed during the test runs of the game was that tall structures can be demolished by hitting them on the top and wide structures can be demolished by undermining their foundations. We will applying suitable heuristics so that we can achieve this.
* Make use of the center of mass/center of gravity of each object for maximum destruction.
* Try to find the weak points in the structure which will be useful to complete any particular level soon. For example in some levels if we keep on trying to hit the pigs without considering the surrounding environment, it fetches less points than what can be achieved if we can successfully exploit the weak spots in the environment.
* It’s better to hit a pig directly if it is free to hit (not surrounded by any objects).
* Hit at the center of mass of objects present near by the pig (+ or – 10 deg) in the case where pig is not directly available to hit.
* Learning the correct usage of various types of birds according to their properties.For example a yellow bird can be best used with minimum angle and maximum velocity to hit the nearby objects, in the case where pig is not freely available to hit.