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

**Week 1 –Submission**

**Team : Finishers**

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**Following are the changes done in “NaiveAgent.java” :-**

**To hit the top most bird:**

* Instead of choosing the pig to be hit in random manner, we made use of Y co-ordinates of the positions of pigs present and selected the pig with lowest Y co-ordinate (i.e at highest position because the origin is at top left).

Here is the code implementation for it :

ABObject pig;

int height=10000,max=0;

for(int i=0;i<=pigs.size()-1;i++){

pig=pigs.get(i);

if(height>pig.getCenter().y){

height=pig.getCenter().y;

max=i;

}

}

pig=pigs.get(max);

//ABObject pig = pigs.get(randomGenerator.nextInt(pigs.size()));

**For the trajectory having highest angle :**

It is using the estimateLaunchPoint function in the trajectory planner class, which returns the arraylist of possible release points for the highest point.

If the size of the arraylist returned is 1 then the first angle with index 0 is used. Otherwise if the arraylist size is greater than 1 then the angle at index 1 is used.

if(firstShot){

prev\_release=null;

}

if (firstShot && pts.size() > 1)

{

System.out.println("E>1");

releasePoint = pts.get(1);

System.out.println(releasePoint);

if(firstShot){

flag=1;

}

}

else if (pts.size() == 1) {

releasePoint = pts.get(0);

double ra = tp.getReleaseAngle(sling,releasePoint);

/\*if(prev\_release!=null) {

double pra = tp.getReleaseAngle(sling, prev\_release);

if (pra - 5 <= ra && pra + 5 >= ra) {

releasePoint = pts.get(1);

}

}\*/

System.out.println(releasePoint);

System.out.println("E==1");

}

else if (pts.size() == 2)

{

// randomly choose between the trajectories, with a 1 in

// 6 chance of choosing the high one

/\*if (randomGenerator.nextInt(6) == 0)

releasePoint = pts.get(1);

else

releasePoint = pts.get(0);\*/

System.out.println("E2");

releasePoint = pts.get(1);

/\*double ra = tp.getReleaseAngle(sling,releasePoint);

if(prev\_release!=null) {

double pra = tp.getReleaseAngle(sling, prev\_release);

if(flag==2){

if (pra - 3 <= ra && pra + 3 >= ra) {

System.out.println("E1");

releasePoint = pts.get(1);

flag=1;

done=1;

}

}

if (done ==0 && flag==1 && pra - 3 <= ra && pra + 3 >= ra) {

System.out.println("E2");

releasePoint = pts.get(0);

flag=2;

}

}

done=0;\*/

System.out.println(releasePoint);

/\*if(firstShot){

System.out.println("f1");

flag=1;

}\*/

}

and

**Here are the level wise scores recorded :**

Level 1 : 29760

Level 2 : 52250

Level 3 : 40180

Level 4 : 27540

Level 5 : 60310

Level 6 : 16590

Level 7 :37180

Level 8 :24 480