UML CLASS DIAGRAM FOR A4

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Tim Sim

+ rows : int
+ columns : int
+ jolts : int
+ growth : int
+ rounds : int
+ numBots : int
+ numPlantConfigs : int
+ plantName : String
+ xCoordinate : int
+ yCoordinate : int
+ plantEnergy : int
+ growthRate : int

DohNat

- districts : District [][]
- height : int
- width : int

+setTimBot() : boolean
+ newRound() : void
+ doSensePhase() : void
+ doMovePhase() : void
+ doBattlePhase() : void
+ doFirePhase() : void
+doDefensePhase() : void
+doHarvestPhase(): void
+getDistrict(x,y) : District
+toString() : String

TimBot

- myID : int
energyLevel : int
personality : char
spressoSensed : int[5]
botsSensed : boolean[5]

+getID() : int
+ startround() :boolean
+getNextMove() : int
+ senseDistricts(spresso, bots) :
void
+isFunctional() : boolean
+useJolt() : boolean
+useSheild (): boolean
+harvestSpresso(jolts) : void
+ toString() : String
+ fireCanon () : int

SpressoBot

+ getNextMove() : int

AngryBot

+getNextMove() :int

BotFactory

Abstract Factory

ChickenBot

+ getNextMove() : int

BullyBot

+fireCanon() :int

District

+ CURRENT: int = 0;
+ NORTH : int = 1
+ EAST : int = 2;
+ SOUTH : int = 3;
+ WEST : int = 4;
- myY : int
- myx : int
- numInvaders : int = 0
- incomingFire : int = 0
- resident : TimBot
- invaderBots : TimBot [5]
- myPlanet : DohNat

+setTimBot() : boolean
+ getAdjoiningDistrict (direction):
District
+ senseDistrict() : void
+ startNewRound() : void
+ doSensePhase() : void
+hasTimBot() : boolean
+ **hasSpresso**() : int (renamed)
+ doMovePhase() : void
+ moveTimBot() : void
+ doBattlePhase() : void
+ doFirePhase() : void
+ fireAtDistrict() : void
+doDefensePhase() : void
+doHarvestPhase(): void
+toString() : String

Plant

-name : String
-growth : int
-energy : int
-havestable :boolean
- ripe : boolean

getEnergy()
GetGROWTH()
setHavestable()
setRIPE()
getPlantCount()

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mericano

- energy :int
-growth : int
-name :String
-Harvestable : boolean
-ripe : boolean

getEnergy()
GetGROWTH()
setHavestable()
setRIPE()

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spresso

- energy :int
-growth : int
-name :String
-Harvestable : boolean
-ripe : boolean

getEnergy()
getGrowth()
setRipe()