Lola’s Programming Chain as of 4/3/2014

Main : output.txt

robotWindow:

Up:

Down:

Left:

Right:

Forward:

Backward:

EForward:

EBackward:

ELeft:

ERight:

waterTests: -Tests both Turbidity[0] and Salinity[1], returns double array of values.

salinityTest: -Tests Salinity, returns double Salinity.

turbidityTest: -Tests Turbidity, returns double Turbidity.

FullRun: OBSELETE, deleted from Github 4/3/14

setPing: (Overloaded)

:setPing(Robot, whichPing, Lola)-Detects Ping X[0] or Y[1] based on int whichPing input, gives the Ping detected to Lola, and returns Ping.

:setPing(Robot,whichPing)- Detects X[0] or Y[1] based on int whichPing input, and returns Ping.

Retrieve:(Robot, Times)- Rams forward then backs up, based on int Times.

coverOpen: - Opens cover with servo 1.

coverClose: - Closes cover with servo 1.

bridgeRun: (Overloaded)

:bridgeRun(Robot, Time)- Runs forward at high speed for specified time. :bridgeRun(Robot)-Runs up ramp and zigzags across bridge following color change. OBSELETE

getPosition: (Robot, int[] expectedPosition) - Calls setPing(Robot,whichPing) to detect PingX and PingY, compares it to expectedPosition, and returns Coordinates[changes needed X,Y, PingX,Y].

correctPosition: (Robot, int[] Changes) – Runs motors to correct position based on changes as specified in int[] Changes.

testPosition: (Robot, int[] expectedPosition) – Driver function for getPosition and correctPosition.

UTurn: (Robot, int Direction)- Executes a 180 degree turn, with direction based on int Direction. 0 for Left, 1 for Right.

testBridge: (Robot) – Runs along in front of bridge searching with line sensor, then once found executed bridgeRun. OBSELETE

Bump: -Detects if bump sensor is pressed.

IR: -Detects from IR Proximity Sensor and does math to convert to useful value.

ColorTest: -Returns output from line sensor.

ballArm :(Robot, Angle) -Moves ‘Arm’ servo to specified angle.

getEPosition: - Returns the two motors’ positions in an int array[Right,Left].

Bump: -Detects if bump sensor is pressed.

Final:( Robot, int First,Second,Third,Fourth)- Driver program for full robot run. Accepts four ints for the four dispenser values. Calls most functions.

LolaObjectMichael: Constructor class for LolaObjectMichael, usually referred to as Lola. Contains attributes X and Y Coordinates as well as Coordinates array, as well as current number of balls for Salinity and Turbidity. Also contains getters and setters for all attributes. NOTE: Setters interact with each other. i.e. setX sets the X attribute, but also sets Coordinates[0], as they are the same attribute, just called different ways.