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/**
 * Created with IntelliJ IDEA.
 * User: Emmanuel Amodu
 * Date: 02/03/23
 * Time: 12:57
 * To change this template use File | Settings | File Templates.
 */
import robot.Robot;
import utils.Delay
public class Run
{
   private static Robot robot;
   private static ControlPanel panel;
   private static Test test;
   /**
    * Method   : Run::Run()
    * Purpose  : Secondary Run class constructor.
    * Parameters : args : The program's arguments.
    * Returns  : Nothing.
    * Notes   : None.
    **/
   public Run(String args[])
   {
      robot = new Robot();
      robot.init(args, robot);
      test = new Test(robot);
      panel = new ControlPanel(robot, 200);
      panel.ShowGUI();
      // [+]Thread setup:
      update.setPriority(Thread.MAX_PRIORITY);
      update.start();
   }
   /**
    * Thread   : Run::update()
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 * Purpose  : To run the update thread.
 * Parameters : None.
 * Returns  : Nothing.
 * Notes   : None.
 **/
Thread update = new Thread()
{
   public void run()
   {
      while(true)
      {
         // your code...
         Delay.ms(1);
      }
   }
};
/**
 * Method   : Run::main()
 * Purpose  : Default main method which runs the Run class.
 * Parameters : - args : Initialization parameters.
 * Returns  : Nothing.
 * Notes   : None.
 **/
public static void main(String args[])
{
   boolean omFlag = false;
   new Run(args);
   //FiniteStateMachine fsm = new FiniteStateMachine(robot);
   while(true)
   {
      // [+]Move example:
      // robot.control.move(100);
      // robot.control.turnSpot(-100);
      // robot.control.turnSmooth(-100);
```

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        // [+]Print example:
         System.out.printf
         (
          "\rOdometry: X = %.1f, Y = %.1f, Th = %.1f, " +
           "Sensors: s(0) = %.1f, s(3) = %.1f, s(7) = %.1f, " +
          "Camera: blob(X) = %d, blob(Y) = %d",
           robot.kinematics.getX(), robot.kinematics.getY(), robot.kinematics.getTh(),
          robot.sensor.getSonarRange(0), robot.sensor.getSonarRange(3), robot.sensor.getSonarRange(7),
          robot.sensor.getBlobX(), robot.sensor.getBlobY()
         );
        //[+]Avoid example:
       //  test.avoid(600.0);
        // [+]Tracking example:
       //  test.track(100.0);
        // [+]Odometry Model example:
       omFlag = test.odometryModel(100);
       if(omFlag)
        {
         robot.shutDown();
         System.exit(1);
        }
        // [+]Mapping example:
        // exercise.mapBuilder();
        // [+]Full assignment solution:
       //  if(omFlag) omFlag = test.odometryModel(100);
      //   else
       // {
      //    if(!test.avoid(100.0))
        //  test.track(100.0);
      //   }
         Delay.ms(100);
      }
   }
}
```