User Guide: Test File

To start testing, set this testing boolean to true and change it to false when done testing.

public static boolean **testing** = true;

**Sensors:** Boolean variables that can set to be either true or false. When set to true, it indicates that the sensor is malfunctioning.

Distance.DistanceDamage = false;

GPS.GPSDamage = false;

Heat.heatDamage = false;

Motion.MotionDamage = false;

Wheels.WheelsDamage = false;

**Distance:**

1. Distance.location = "Right";

* Where the living or non-living object is found based on the train. Can input string values “Front”, “Back”, “Right”, and “Left”.

1. Distance.distance = 10;

* Distance of the living or non-living object from the train. A double value between 0 - 10 can be inputted. 10 indicates 10 km from the train.

1. Distance.gate = false;

* Indicates whether a gate malfunction is detected or not. Can input boolean values, true or false. True indicates that a gate malfunction is detected.

//distance of the train from the gate, value from 1 - 10 (km)

1. Distance.gateDistance = 10;

* Indicates the distance of the train from the gate. Can input double value between 0 -30. 10 indicates that the gate is 10 km away from the train.

**GPS:**

1. GPS.actualSpeed = 100;

* The speed calculated by the GPS sensor. Values between 0 - 220 can be inputted. 100 indicates that the train’s actual speed is 100km/h.

**Heat:**

1. Heat.living = false;

* Indicates whether there is a live object within 10 km from the train. Can input boolean values, true or false. True indicates that a living object is detected.

//the speed of the live object, values between 0 - 90 km/hr

1. Heat.living\_speed = 50;

* Indicates the speed of the living object. Can input double values between -90 - 90. 50 indicates that the living object is moving at 50 km/h towards the train. Negative values indicate that the living object is moving away from the train.

**Wheels:**

1. Wheels.currentSpeed = 110;

* Indicates the current speed of the train. Can input double values between 0 - 210. 110 indicates that the train is moving at 110km/h.

1. Wheels.slippage = true;

* Indicates whether there is slippage occurring. This factor will be automatically set depending on the actual speed and the current speed in non-testing mode. For testing purposes, this value can be set to either true or false. True indicates that there is slippage occurring.

**Motion:**

1. Motion.object = false;

* Indicates whether there is a non-moving or non-living object near the train. Can input boolean values. False indicates that there is no moving object within 10 km of the train.