Parametric Constraints Diagram

wheel.circumference : C

wd : Real

<<constraint>>
Wheel Dimension
{Wheeldimension :D = C/π. }
{NumberOfWheels**}**

number.of.wheels : n = 3

nw : Real

number.of.ultrasonic.sensor : N=1}

nu:Real

<<constraint>>
Ultrasonic sensor
{NumberOfUltrasonicsensor}
{MaximumDistanceCar&Obstacle}

maximum.distance.car.&obstacle : D = 10 cm

mdco: Real

<<constraintBlock>>
Robot Car

constraints

{Wheeldimension }
{NumberOfWheels}
{NumberOfUltrasonicsensor}
{MaximumDistanceCar&Obstacle}
{totalmass = ccm + ecm}
{NumberOfIRsensor}
{DimensionOfRobotCar = Length > Width
}

parameters

x: Real
y: Real
n: Real
N: Real

car.chasis.mass : g

ccm : Real

<<constraint>>
RobotCarMass
{totalmass = ccm + ecm}

ecm :R

electronics.components.mass : g

<<constraint>>
Chasis Dimension

constraints

{DimensionOfRobotCar = Length * Width }

parameters

Length : Real
Width : Real

<<constraint>>
IR Sensor

constraints

{NumberOfIRsensor,N = 2}

parameters

N : Real