



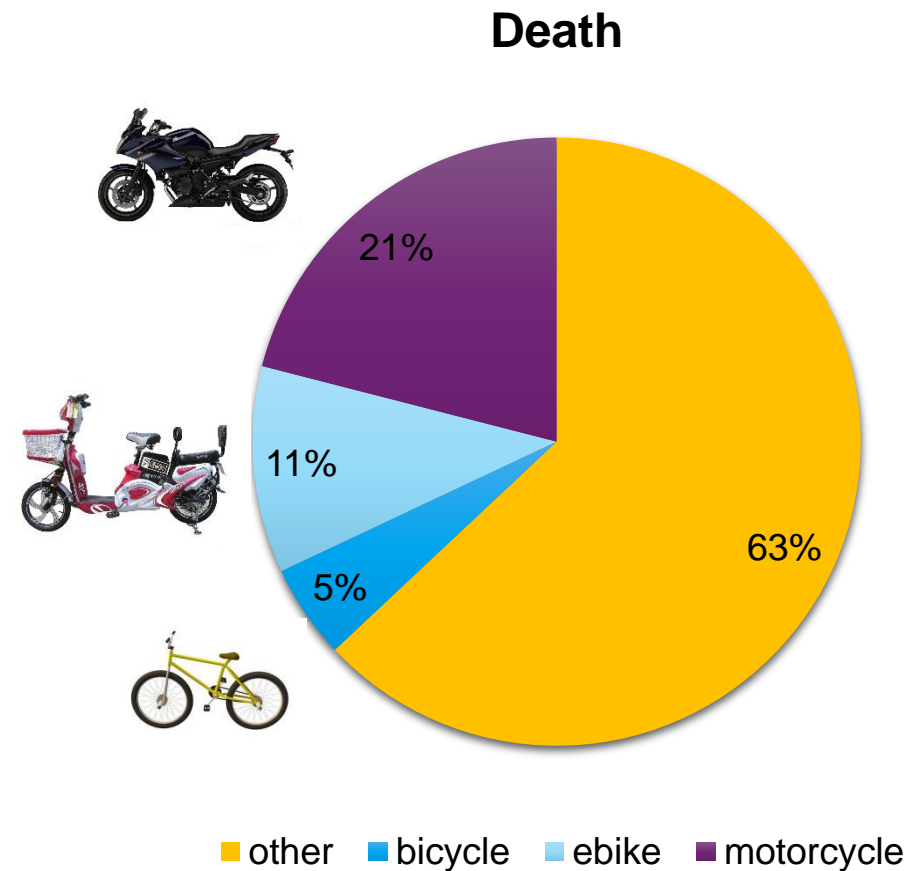
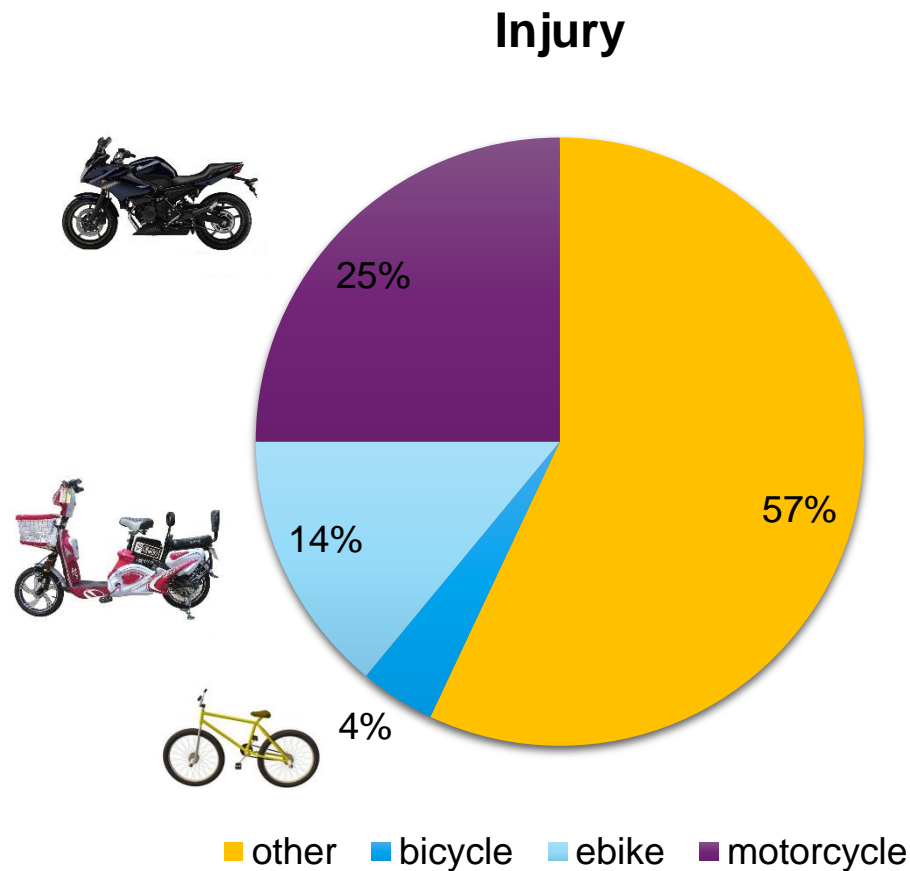
## 2-wheeler size statistics based on CIDAS database

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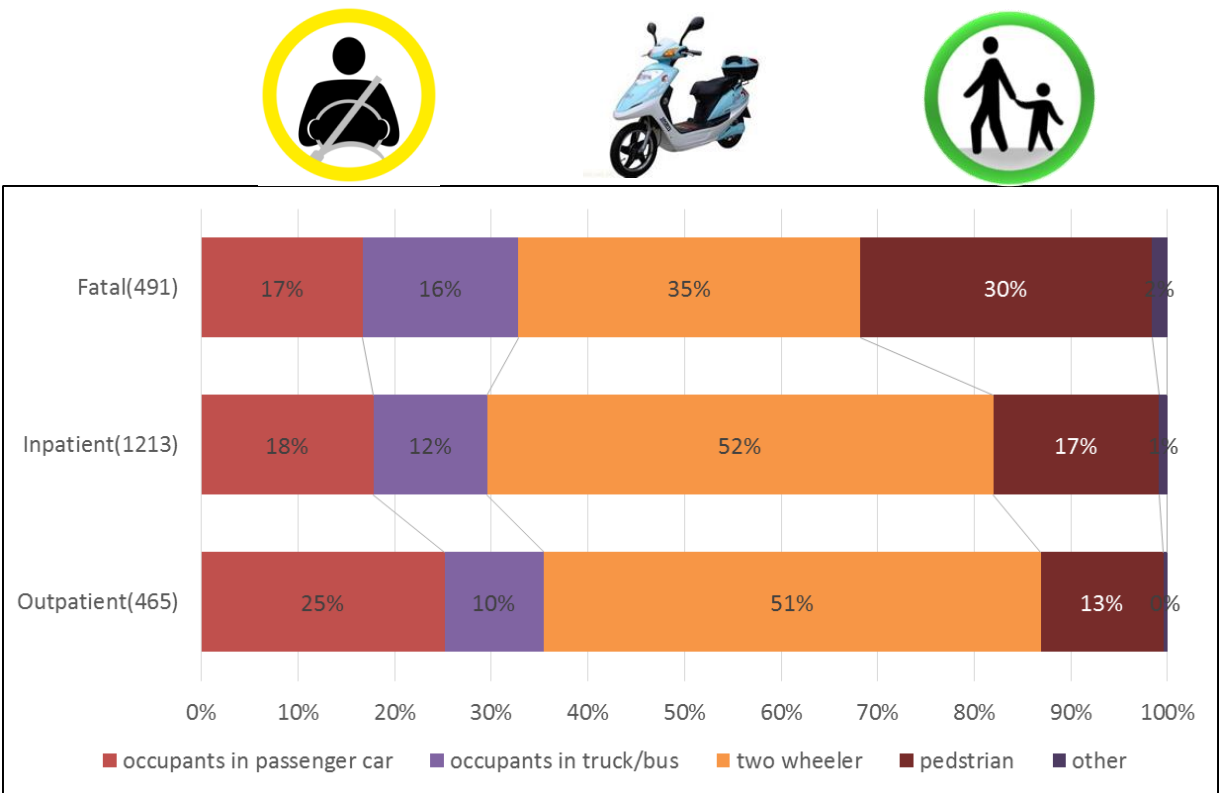
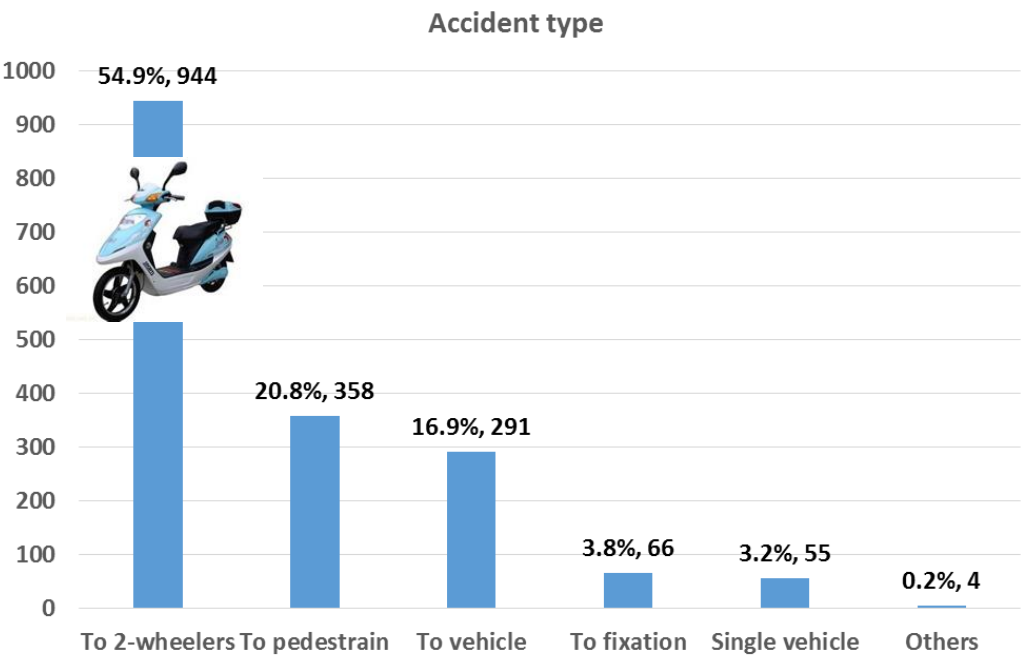
## 2-wheelers accident status in China(MPS data 2014)

- The two-wheeler accidents account for 37% death and 43% injury of all the 6.76 million accidents based on the results of the 2014 national road traffic accident statistics report.



# 2-wheelers accident status in China(CIDAS 2011~2014)

- The two-wheeler accidents account for 54.9% in all accidents and 35% death according to CIDAS database



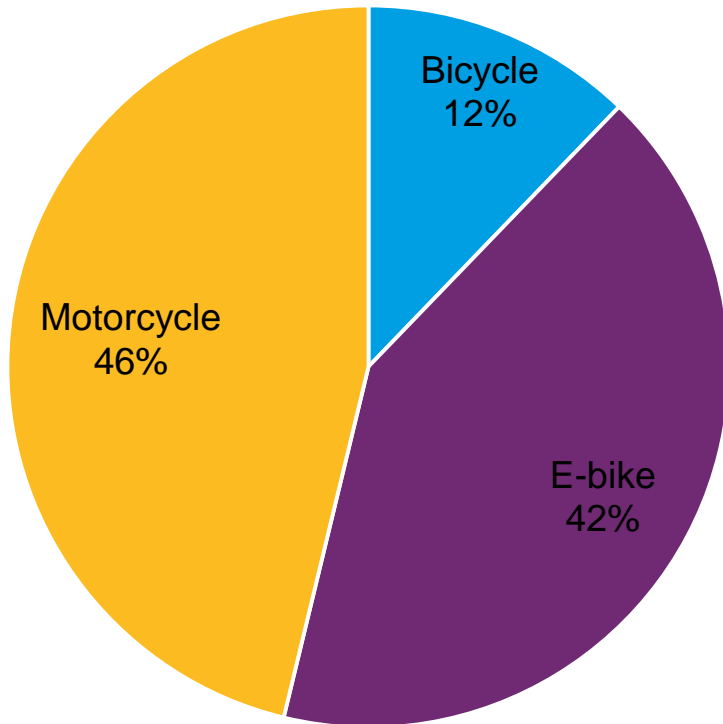
## 2-wheeler dimension in the database



## 2-wheeler category

- 2-wheelers have been divided into 3 categories, 'bicycle'(186 cases), 'e-bike'(633 cases) and 'motorcycle'(704 cases).

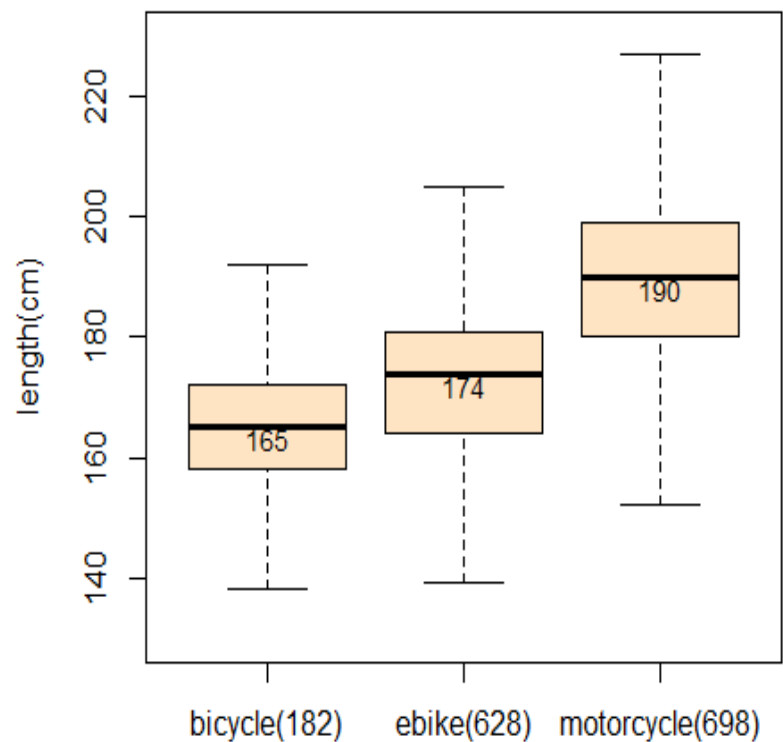
CIDAS 2011~2016(1523 cases)



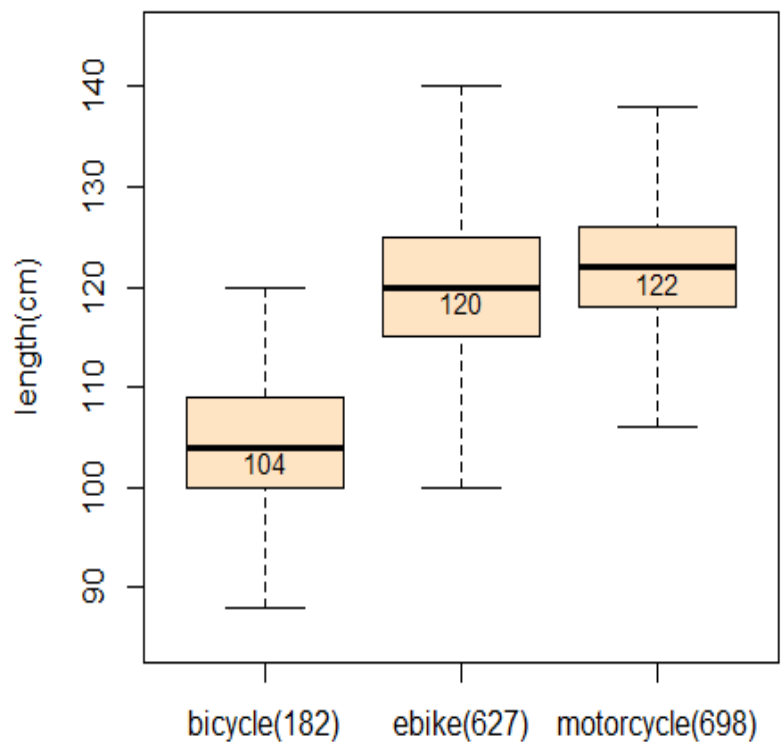
Dimension	2-wheeler	N	Mean	Median	SD	Min	Max	CI
handlebar height(cm)	Bicycle	184	96	98	8.9	55	140	1.3
	E-bike	627	101	100	9.0	62	199	0.7
	Motorcycle	698	99	98	8.4	63	175	0.6
handlebar width(cm)	Bicycle	184	56	55	5.7	34	75	0.8
	E-bike	630	64	63	5.9	4	100	0.5
	Motorcycle	699	68	67	6.5	27	109	0.5
saddle height(cm)	Bicycle	183	82	82	7.6	56	104	1.1
	E-bike	627	75	75	6.3	44	120	0.5
	Motorcycle	697	77	77	5.6	42	105	0.4
distance handle bar to bench/seat(cm)	Bicycle	183	57	55	10.2	30	95	1.5
	E-bike	621	62	60	11.2	30	140	0.9
	Motorcycle	686	71	66	17.4	26	130	1.3
overall length(cm)	Bicycle	182	165	165	19.9	103	271	2.9
	E-bike	628	174	174	16.2	130	303	1.3
	Motorcycle	698	189	190	16.7	91	281	1.2
maximum width(cm)	Bicycle	184	56	55.5	7.2	34	96	1.0
	E-bike	630	65	64	7.8	34	136	0.6
	Motorcycle	698	70	70	7.9	7	113.5	0.6
wheelbase(cm)	Bicycle	182	106	104	12.9	72	170	1.9
	E-bike	627	120	120	11.7	15	190	0.9
	Motorcycle	698	121	122	9.7	84	193	0.7
unladen weight(kg)	Bicycle	11	23	20	6.3	15	30	4.2
	E-bike	115	66	60	16.7	32	99	3.1
	Motorcycle	270	106	105	15.5	70	170	1.9
Tyre diameter(cm)	Bicycle	68	60	61	8.8	25.4	71.1	2.1
	E-bike	249	37	41	8.5	6.4	63.5	1.1
	Motorcycle	310	40	43	8.4	7.6	45.7	0.9

# 2-wheeler dimension boxplot

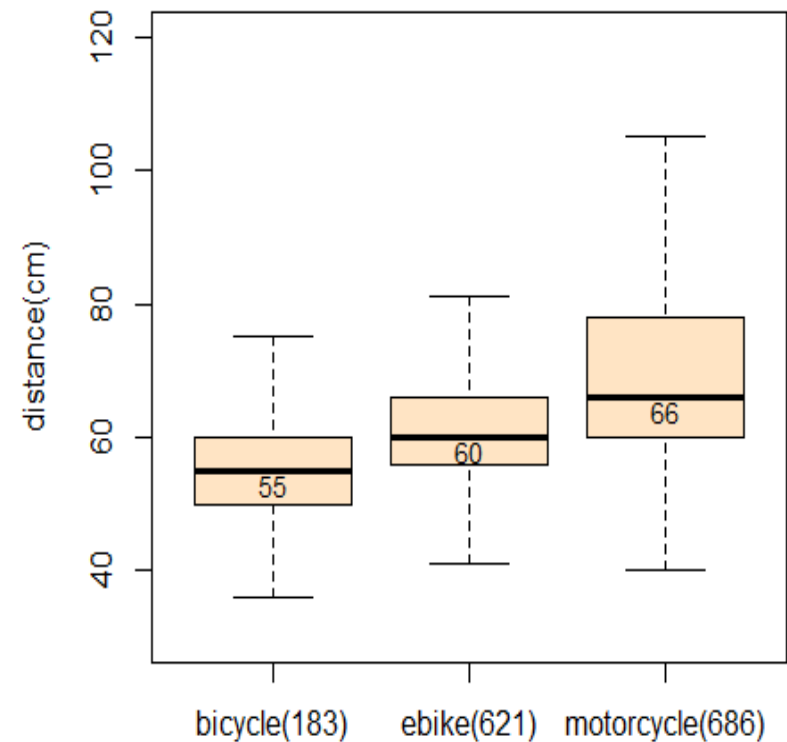
Overall length



Wheelbase



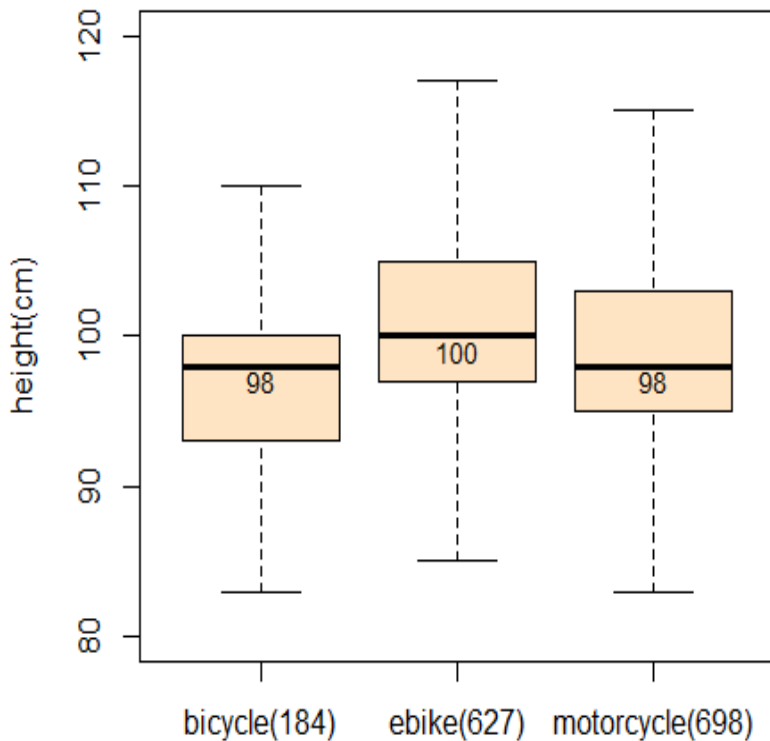
Distance handle bar to bench



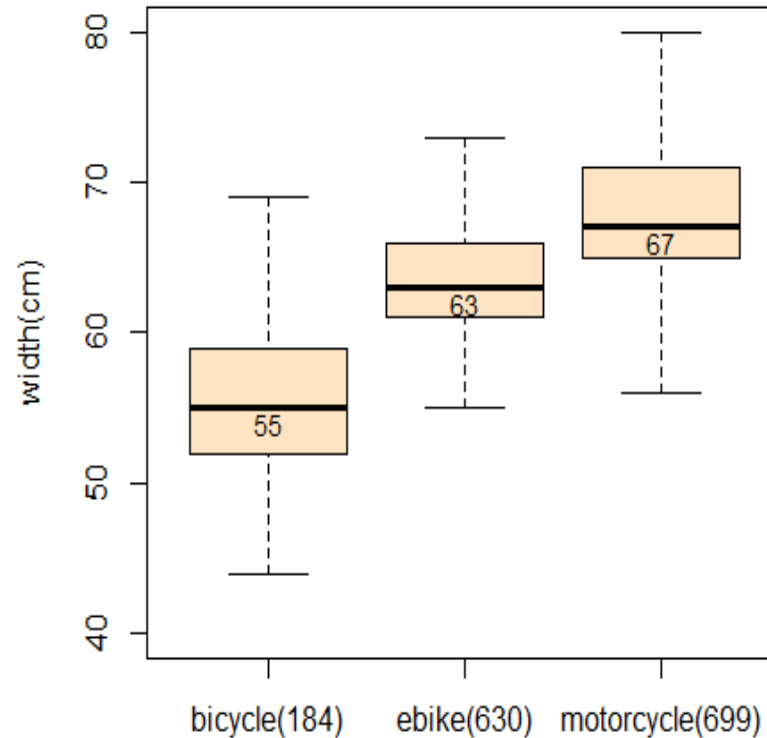


## 2-wheeler dimension boxplot

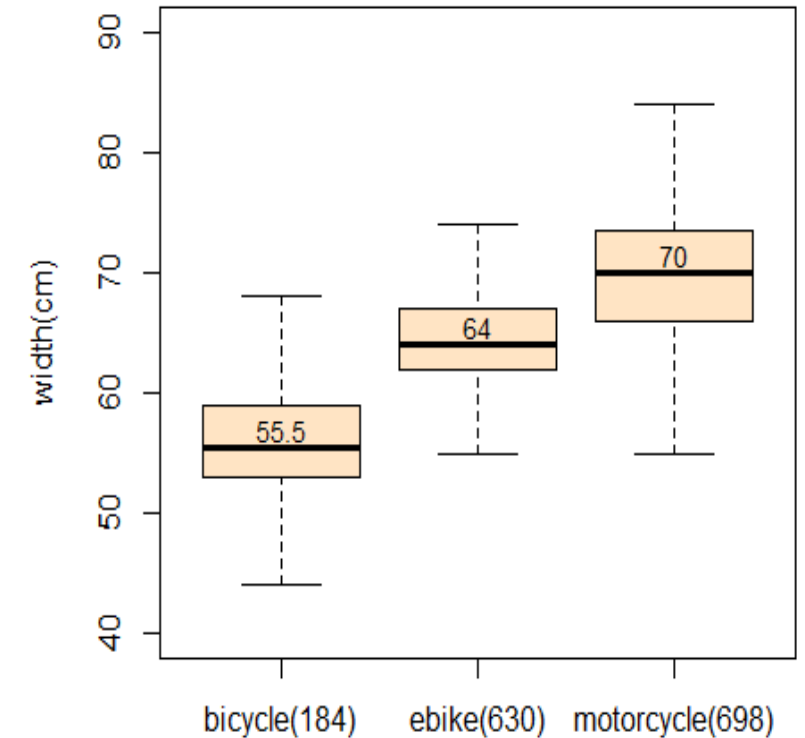
Handlebar height



Handlebar width



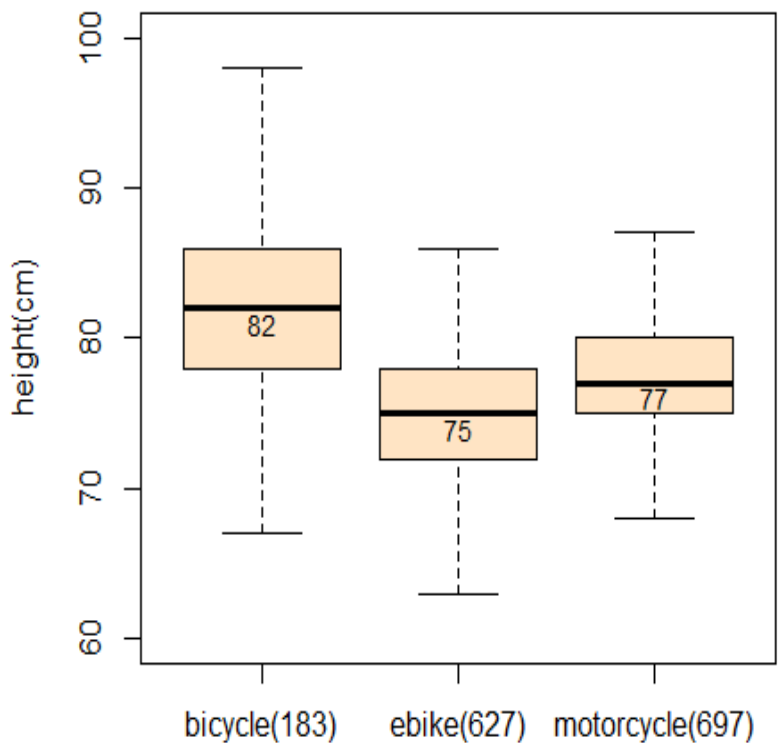
Maximum width



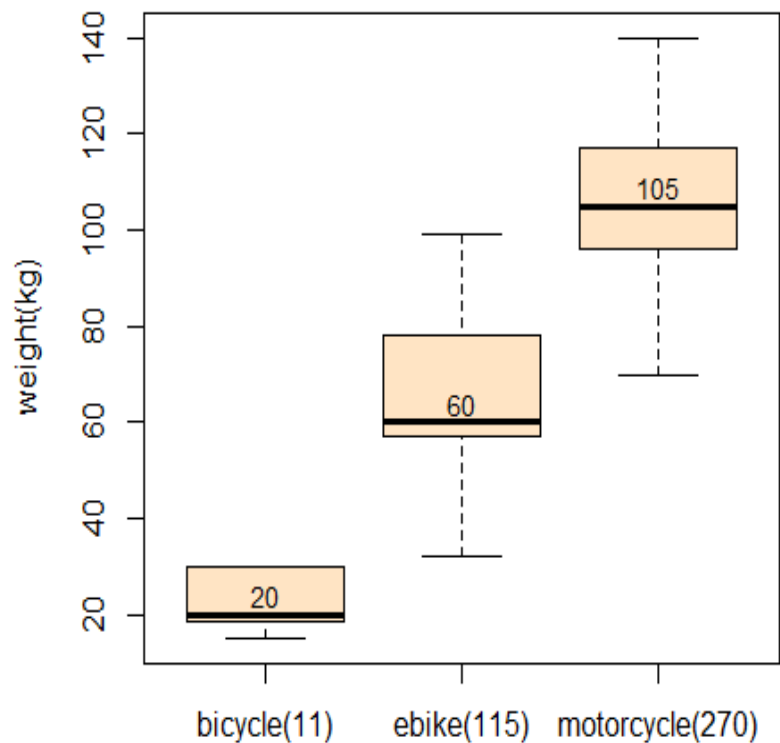
- Note: Normally the maximum width equals to the width of handlebar for a 2-wheeler.

# 2-wheeler dimension boxplot

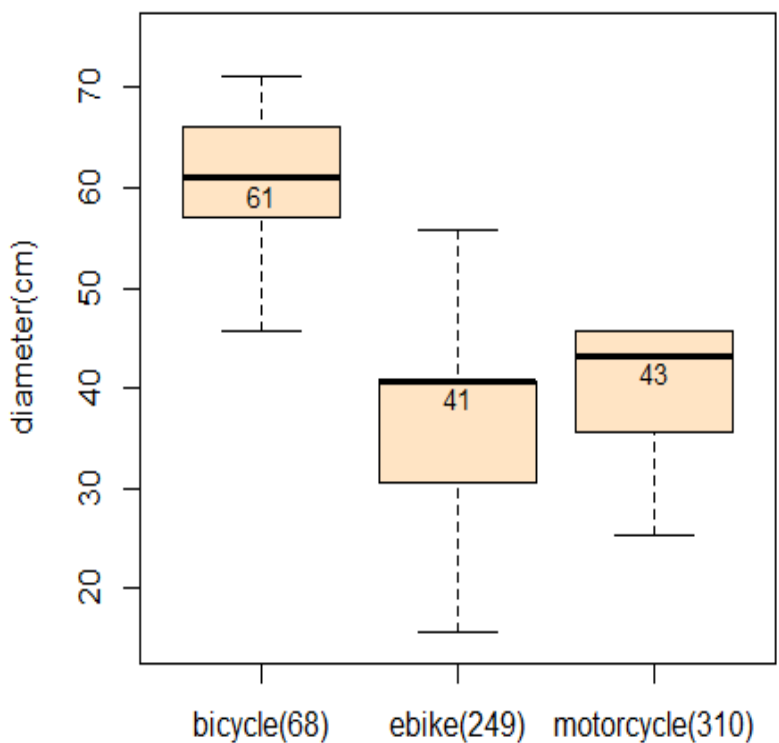
Saddle



Unladen weight



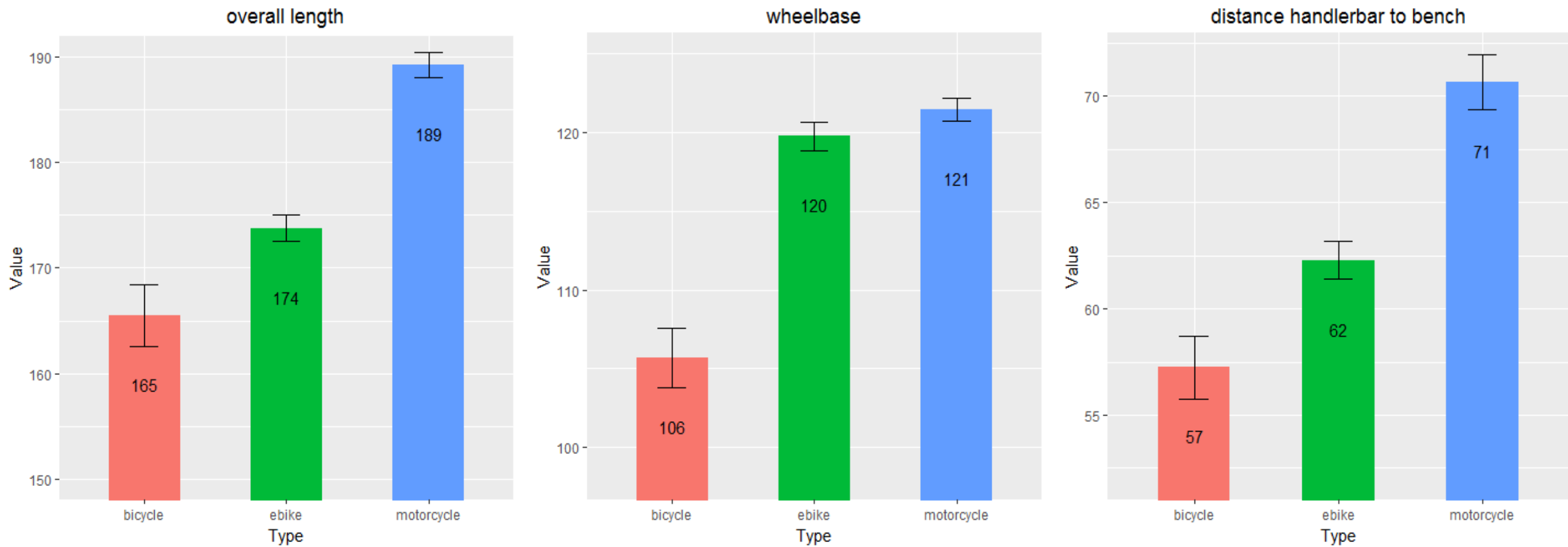
Tyre diameter



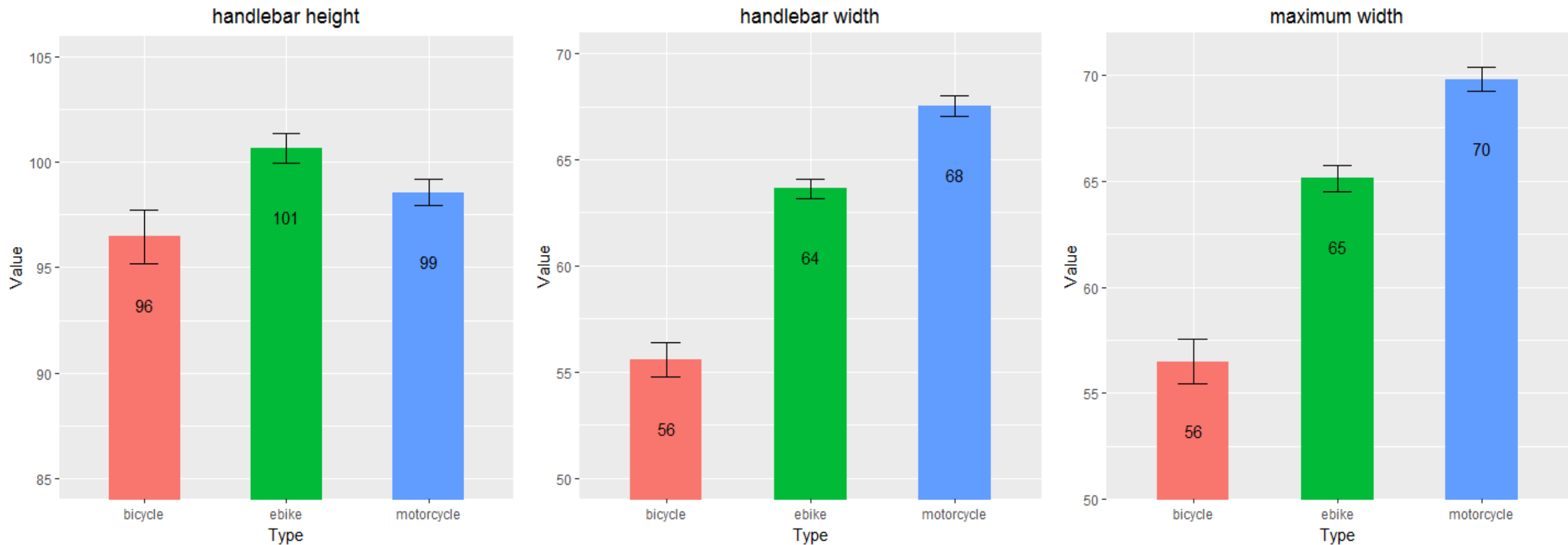
- Note: For weight and tyre diameter, many statistics are recorded as unknown.



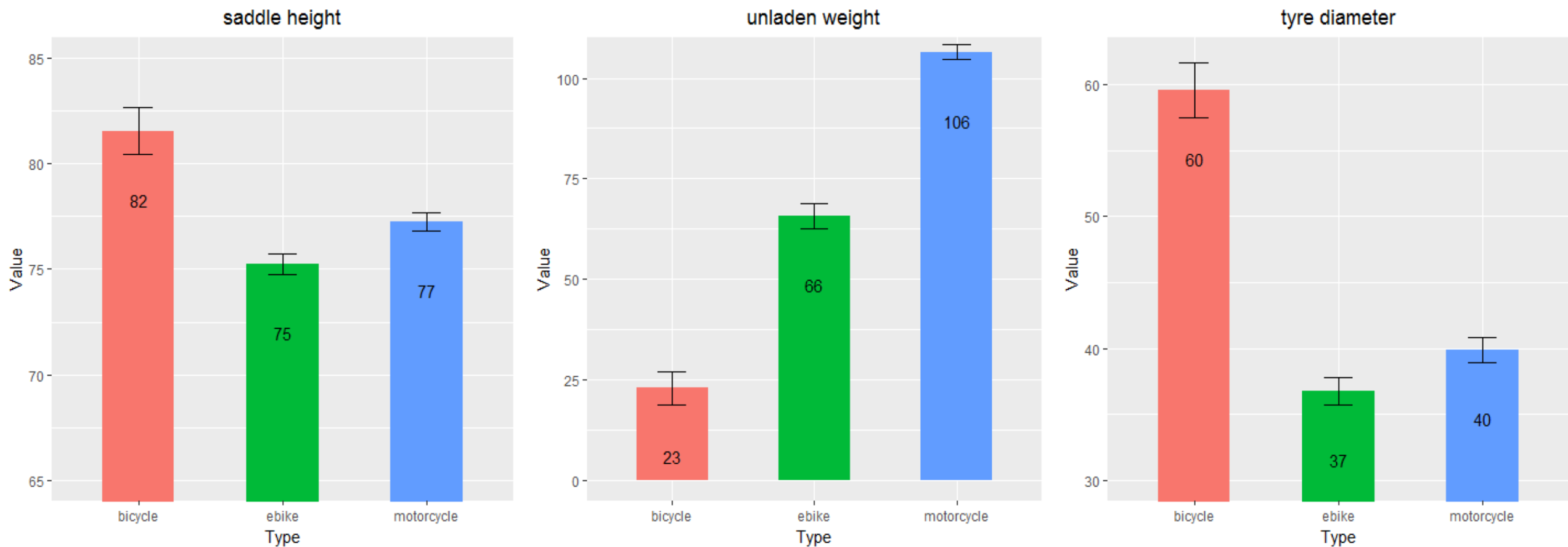
# 2-wheeler dimension CI figure



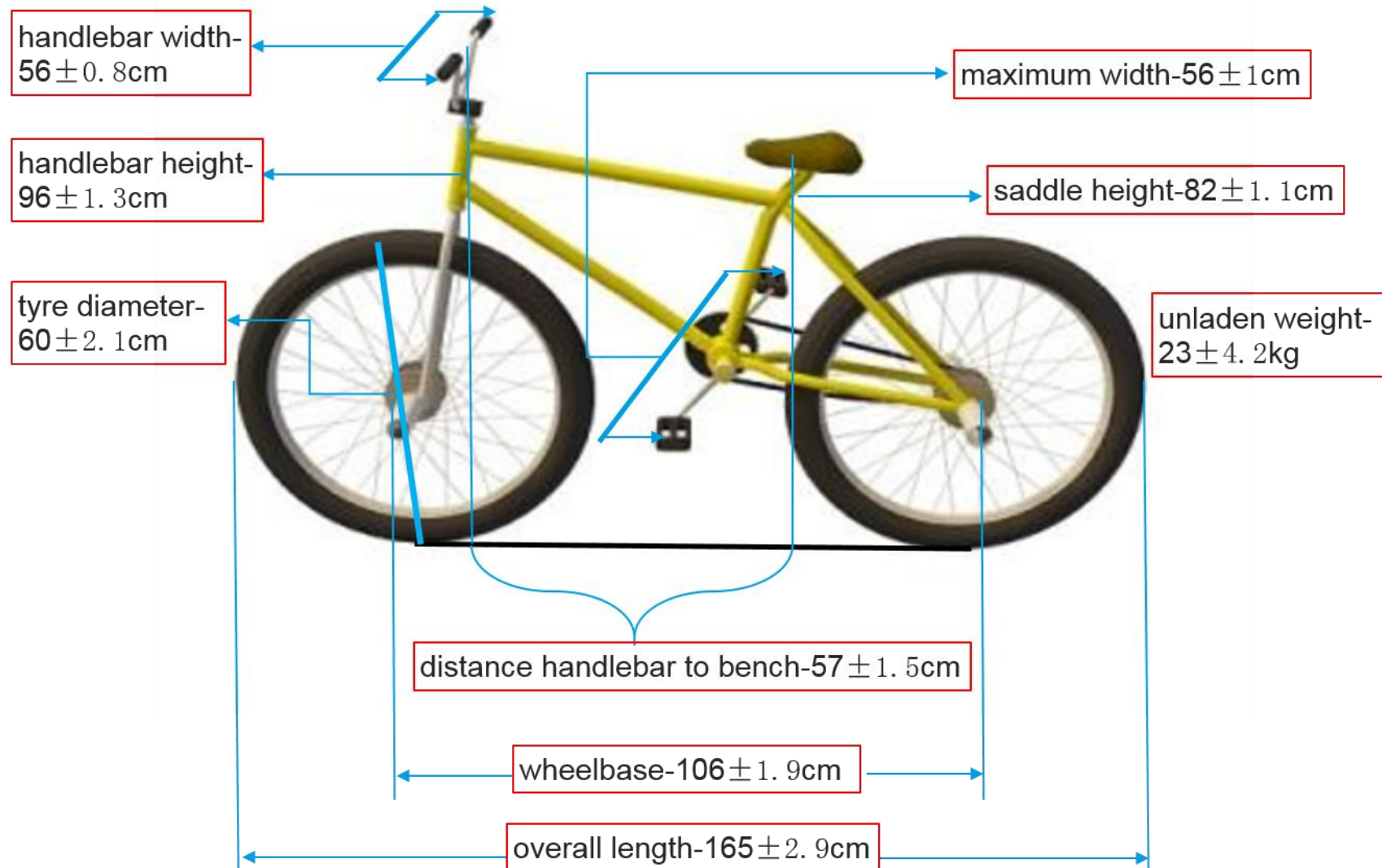
# 2-wheeler dimension CI figure



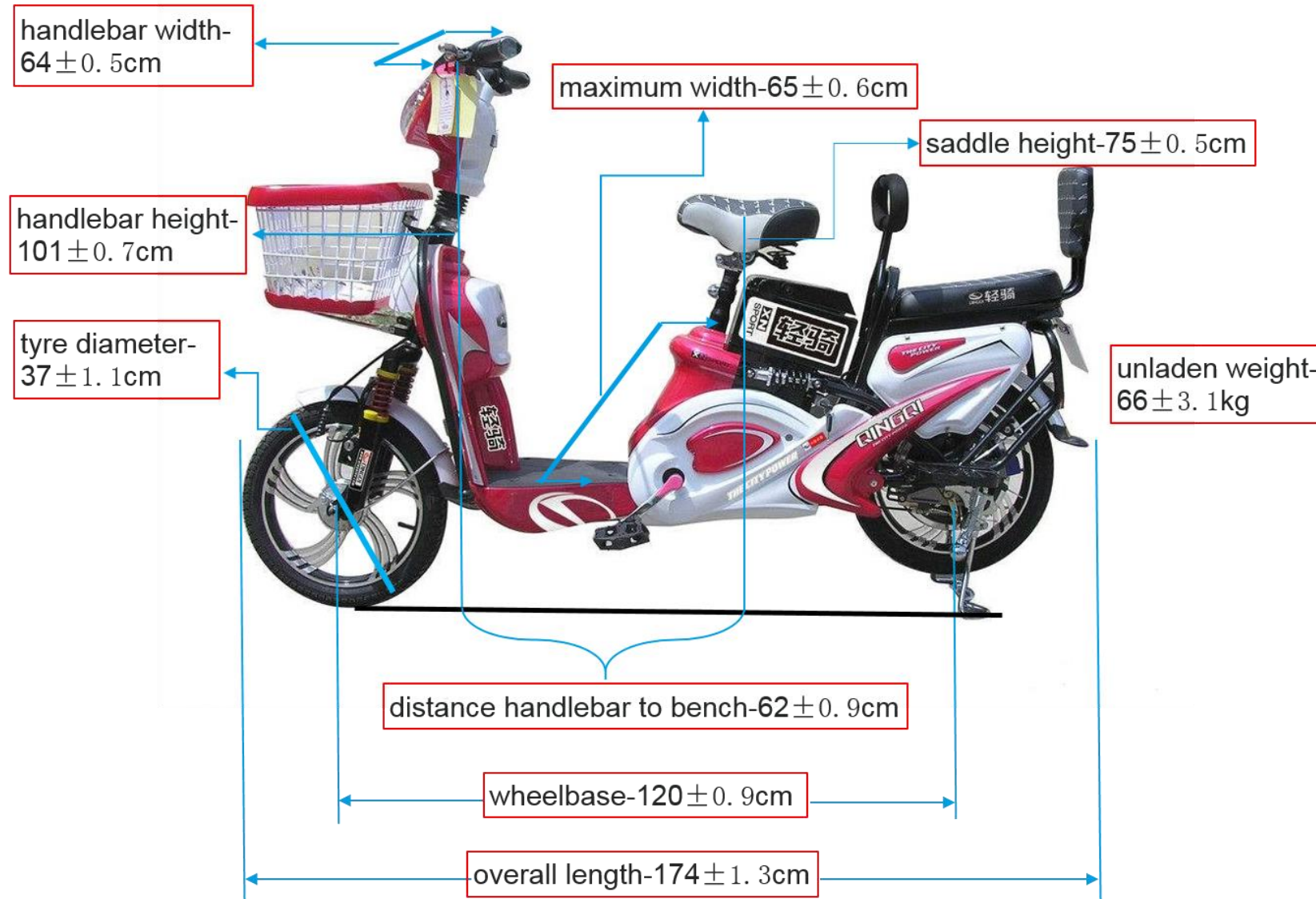
# 2-wheeler dimension CI figure



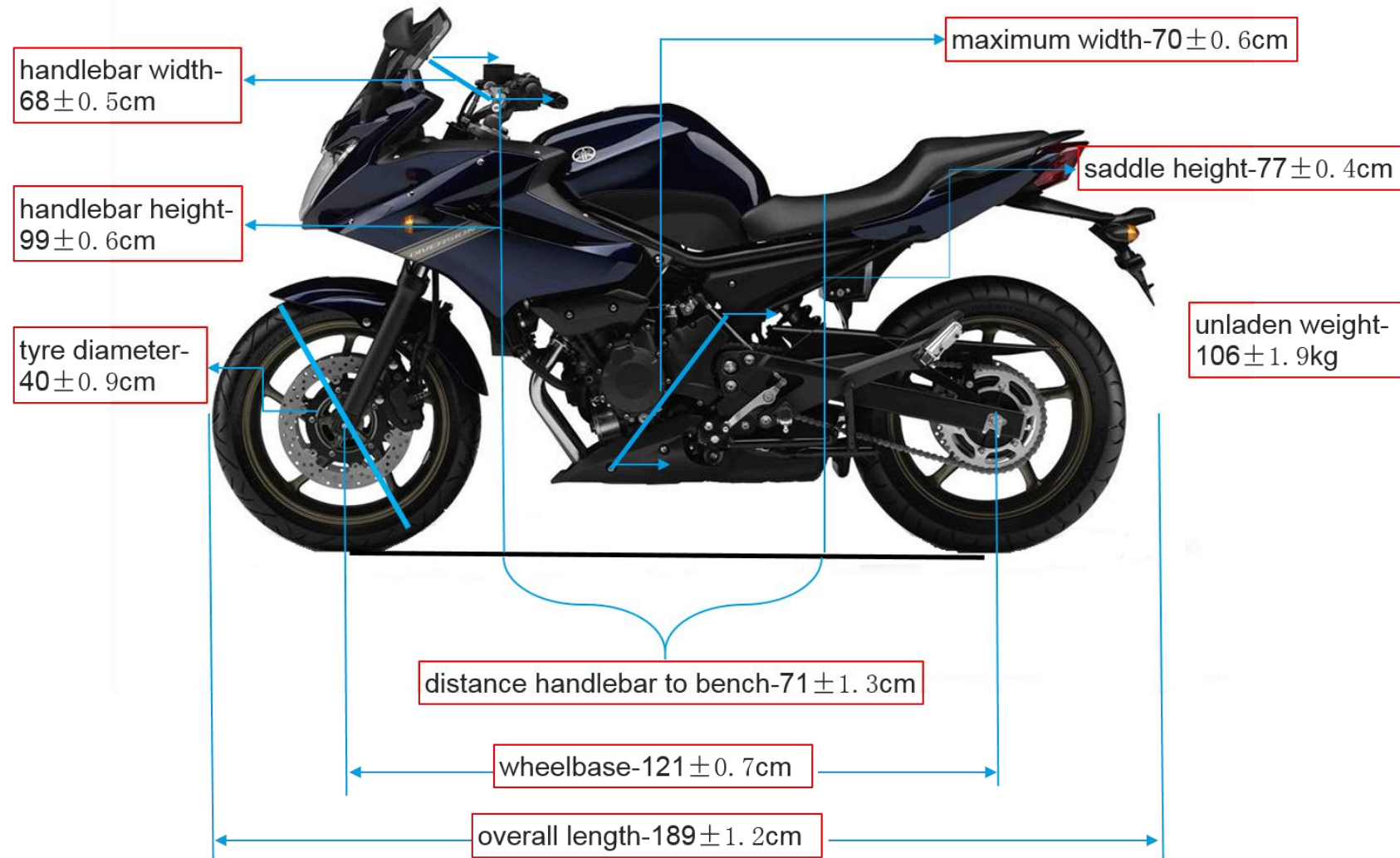
# Bicycle Model(mean value)



# E-Bike Model(mean value)



# Motorcycle Model(mean value)







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