What is claimed is:

1. An auxiliary lighting system for a helmet operable in conjunction with a lighting system of a vehicle comprising a vehicle brake light, the auxiliary lighting system comprising:

a) a microcontroller;~~helmet portion comprising:~~

~~a helmet lighting unit comprising a helmet brake light;~~

~~a microcontroller connected to the power supply and in signal communication with the helmet brake light; and~~

a helmet transceiver in signal communication with the microcontroller; and

b) a vehicle portion comprising:

a vehicle portion supporting body mountable on the vehicle;

a vehicle transceiver in ~~wireless~~ signal communication with the microcontroller~~helmet transceiver~~; and

a vehicle accelerometer joined to the vehicle portion supporting body and in signal communication with the microcontroller, and operable to send a signal indicative of relative position of the vehicle accelerometer with respect to the gravitational field of the Earth;

wherein the microcontroller is programmed with an algorithm such that when executed, the microcontroller receives the signal indicative of the relative position of the vehicle accelerometer, and determines the performance capability of the vehicle accelerometer in detecting acceleration of the vehicle with respect to the Earth based upon the signal indicative of the position of the vehicle accelerometer~~,~~; and such that when the vehicle is rotated from a fixed position to an alternative position and the microcontroller receives a signal from the vehicle accelerometer representative of the rotation, based upon that signal, the performance capability of the vehicle accelerometer is improved.~~presents an indication of the performance capability of the accelerometer to a user of the auxiliary lighting system.~~

~~2. The auxiliary lighting system of claim 1, wherein the vehicle portion of the system is further comprised of a vehicle accelerometer performance indicator and wherein the indication of the performance capability of the vehicle accelerometer is presented on the vehicle accelerometer performance indicator.~~

3. The auxiliary lighting system of claim 1, wherein the indication of the performance capability of the vehicle accelerometer is presented on a display screen of a mobile device.

4. The auxiliary lighting system of claim 1, wherein the helmet portion is further comprised of a helmet portion supporting body and a helmet accelerometer joined to the helmet portion supporting body and in signal communication with the microcontroller, and operable to send a signal indicative of an upward position of the helmet portion supporting body or a downward position of the helmet portion supporting body relative to the helmet.

5. The auxiliary lighting system of claim 1, wherein:

the lighting system of the vehicle is further comprised of a vehicle left signal light and a vehicle right signal light;

the helmet lighting unit is further comprised of a first helmet signal light and a second helmet signal light; and

the microcontroller is programmed with an algorithm such that when executed, the microcontroller receives the signal indicative of an upward or downward position of the helmet portion supporting body relative the helmet, and if the helmet portion supporting body is in the upward position, the algorithm instructs the microcontroller to cause the first helmet signal light to be illuminated when the vehicle left signal light is illuminated and to cause the second helmet signal light to be illuminated when the vehicle right signal light is illuminated, and if the helmet portion supporting body is in the downward position, the algorithm instructs the microcontroller to cause the first helmet signal light to be illuminated when the vehicle right signal light is illuminated and to cause the second helmet signal light to be illuminated when the vehicle left signal light is illuminated.

6. The auxiliary lighting system of claim 1, wherein:

the lighting system of the vehicle is further comprised of a vehicle left signal light and a vehicle right signal light;

the helmet lighting unit is further comprised of a first helmet signal light and a second helmet signal light; and

the microcontroller is programmed with an algorithm such that when executed, the microcontroller receives the signal indicative of the position of the helmet

~~portion supporting body relative the helmet, and if the helmet portion supporting body is in the upward position, the algorithm instructs the microcontroller to cause the first helmet signal light to be illuminated when the vehicle left signal light is illuminated and to cause the second helmet signal light to be illuminated when the vehicle right signal light is illuminated, and if the helmet portion supporting body is in the downward position, the algorithm instructs the microcontroller to operate an alarm device of the system.~~

~~7.~~2. A method of installing an auxiliary lighting system ~~for a helmet~~ operable in conjunction with a lighting system of a vehicle comprising a vehicle brake light, the auxiliary lighting system comprising:

~~a helmet light portion including a helmet lighting unit comprised of a helmet brake light, a microcontroller in signal communication with the helmet brake light, and a helmet transceiver in signal communication with the microcontroller; and~~

a vehicle portion including a vehicle portion supporting body, ~~a vehicle transceiver in wireless signal communication with the helmet transceiver~~a microcontroller, and a vehicle accelerometer joined to the vehicle portion supporting body and in signal communication with the microcontroller, and operable to send a signal indicative of relative position of the vehicle portion supporting body with respect to the gravitational field of the Earth while the vehicle is in a fixed position; and

the method comprising:

mounting the vehicle portion supporting body on the vehicle; and

based upon the signal from the vehicle accelerometer, determining the performance capability of the accelerometer in detecting acceleration of the vehicle with respect to the Earth; and

rotating the vehicle and the vehicle portion of the system from the fixed position of the vehicle, detecting the rotation of the vehicle with the vehicle accelerometer, delivering a signal representative of the rotation from the accelerometer to the microcontroller, and based upon that signal, improving the performance capability of the accelerometer.

~~8. The method of claim 7, further comprising presenting an indication of the performance capability of the accelerometer to a user of the auxiliary lighting system.~~

~~9. The method of claim 7, further comprising rotating the vehicle and the vehicle portion of the system, detecting the rotation with the vehicle accelerometer, delivering a signal~~

~~representative of the rotation from the accelerometer to the microcontroller, and based upon that signal, improving the performance capability of the accelerometer.~~

~~10.~~3. An auxiliary lighting system for a helmet operable in conjunction with a lighting system of a vehicle comprised of a vehicle left signal light and a vehicle right signal light, the auxiliary lighting system in signal communication with the vehicle lighting system and comprising a helmet light portion including:

a) a helmet portion supporting body;
b) a helmet lighting unit mounted on the helmet portion supporting body and comprised of a first helmet signal light and a second helmet signal light;
c) a microcontroller in signal communication with the first helmet signal light and the second helmet signal light; and
d) a helmet accelerometer joined to the helmet portion supporting body and in signal communication with the microcontroller, and operable to send a signal to the microcontroller indicative of an upward position of the helmet portion supporting body or a downward position of the helmet portion supporting body relative to the helmet while the helmet is in a fixed position;

wherein the microcontroller is programmed with an algorithm such that when executed, and while the helmet is in the fixed position, if the signal from the accelerometer is indicative of an upward position of the helmet portion supporting body, the microcontroller causes the first helmet signal light to be illuminated when the vehicle left signal light is illuminated, and the microcontroller causes the second helmet signal light to be illuminated when the vehicle right signal light is illuminated.

~~11.~~4. The auxiliary lighting system of claim ~~10~~3, wherein the algorithm is such that when executed, and when the helmet is in the fixed position, if the signal from the accelerometer is indicative of a downward position of the helmet portion supporting body, the microcontroller causes the first helmet signal light to be illuminated when the vehicle right signal light is illuminated, and the microcontroller causes the second helmet signal light to be illuminated when the vehicle left signal light is illuminated.

~~12.~~5. The auxiliary lighting system of claim ~~10~~3, wherein the algorithm is such that when executed, and when the helmet is in the fixed position, if the signal from the accelerometer is indicative of a downward position of the helmet portion supporting body, the algorithm instructs the microcontroller to operate an alarm device of the auxiliary lighting system.

~~13.~~6. The auxiliary lighting system of claim ~~10~~3, further comprising a helmet transceiver in signal communication with the microcontroller, and a vehicle portion comprised of a vehicle transceiver in wireless signal communication with the helmet transceiver.

~~14.~~7. A method of installing an auxiliary lighting system for a helmet operable in conjunction with a lighting system of a vehicle comprising a vehicle left signal light and a vehicle right signal light, the auxiliary lighting system comprising:

a helmet light portion including a helmet lighting unit comprised of a helmet portion supporting body, a first helmet signal light and a second helmet signal light mounted on the helmet portion supporting body, a microcontroller in signal communication with the first helmet signal light and the second helmet signal light, a helmet transceiver in signal communication with the microcontroller, and a helmet accelerometer joined to the helmet portion supporting body and in signal communication with the microcontroller, and operable to send a signal indicative of an upward position of the helmet portion supporting body or a downward position of the helmet portion supporting body relative to the helmet;

the method comprising:

mounting the helmet portion supporting body on the helmet; and

based upon a signal from the helmet accelerometer while the helmet is in a fixed position, detecting if the helmet portion supporting body is in the upward position or the downward position.

~~15.~~8. The method of claim ~~14~~7, wherein if the helmet portion supporting body is detected to be in the upward position, the method further comprises causing the first helmet signal light to be illuminated when the vehicle left signal light is illuminated and causing the second helmet signal light to be illuminated when the vehicle right signal light is illuminated.

~~16.~~9. The method of claim ~~14~~7, wherein if the helmet portion supporting body is detected to be in the downward position, the method further comprises causing the first helmet signal light to be illuminated when the vehicle right signal light is illuminated and causing the second helmet signal light to be illuminated when the vehicle left signal light is illuminated.

~~17.~~10. The method of claim ~~14~~7, wherein if the helmet portion supporting body is detected to be in the downward position, the method further comprises operating an alarm device of the auxiliary lighting system.