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UNIVERSITI
TEKNOLOGI
MARA



TECHNOLOGY VENTURE BLUEPRINT : SMART CONVEX MIRROR

(BY BIO-PRO SALES AND SERVICE SDN BHD)

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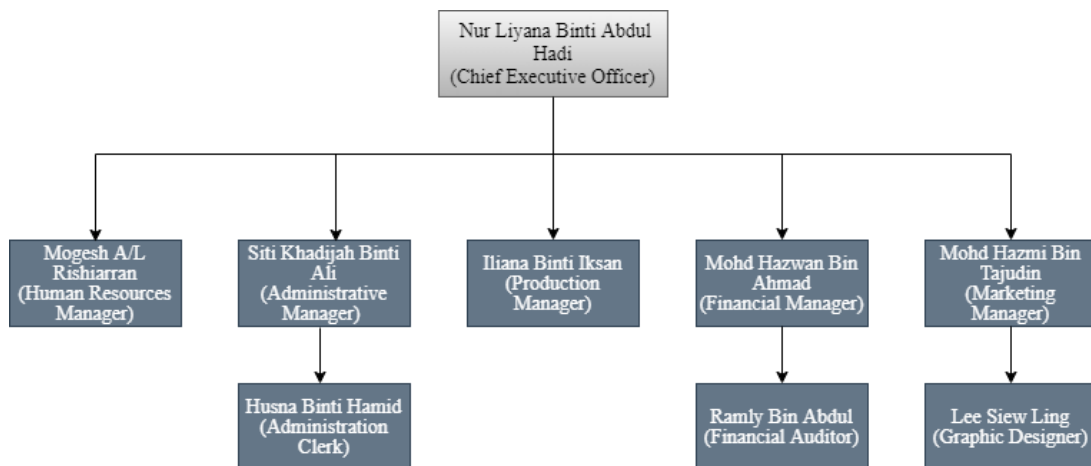
1.0 EXECUTIVE SUMMARY

Bio-pro desire to introduce to the consumers a new product which is the ‘SMART convex mirror’ with built-in warning light and wireless magnetic sensor technology. With the existing of warning light and wireless sensor technology, this convex mirror can be used for drivers who having vision issues especially during nighttime at blind curve area.

The company offers business to business which that exchange of products, services, or information between two businesses, rather than between a company and individual consumers. Potentially the major purchasers for the SMART convex mirror are from the local governments in Malaysia that involve in road and traffic development in certain area. For instances, city council covers development in city or urban area while district council covers most in suburban area. Local governments are also usually referred as local authority is an organization that is officially responsible for all the public services and facilities in a particular area. The product is installed at the blind curve area or in targeted area, so it is appropriate to have people who are knowledgeable about the road development aspects.

The SMART convex mirror is known as an improvement on current products as the product has undergone major changes compared to the regular convex mirror. Major changes included in term of product design and performance compared to existing product on market. There are many new features added that purposely to solve customer problem. Technology proposed in this product is wireless magnetic sensor or magnetometer where placed underneath the speed bump. A magnetometer responsible to sense a magnetic field produce after detected metal and send signal wirelessly to access device nearby. Then, the access device will trigger the warning light to turn on.

Management team consists of several departments lead by CEO of company which is Nur Liyana. Binti Abdul Hadi. Every department responsible to run specific job based on their job description and scope.



2.0 PRODUCT OR SERVICE DESCRIPTION

2.1 Product Details

Convex mirror

Characteristic	Detail
Material	Acrylic
Type	Outdoor
Size	600mm
Weight	5kg
Coverage	160°
Shape	Round
Color	Orange
Pole's height	3m

Warning light

Characteristics	Detail
Material	Lens-AS and Body-ABS
Shape	Rectangular
Operating temperature	-30°C until 50°C
Communication	Wireless (Wi-Fi)

The SMART convex mirror component consists of a built-in warning light around the curve with 2 speed bumps with magnetic sensor buried in each of it. The proposed magnetic sensor is magnetometer. A magnetometer operates on the principle of a large metal object disturbing a magnetic field, just as inductive loop detectors work. When a vehicle is detected, the warning lights are activated ahead of the vehicle. Moreover, the function of speed bump is to control the speed of vehicles when bump into it. While a vehicle is slowing down, the lights warn the driver of another vehicle entering the curve from the opposite direction that there is an oncoming vehicle. The other set of magnetometers will be set right within the curve also so that cars that have passed will still be notified if another car has just entered the curve. The product is intended to reduce the number of accidents around blind curves, so it is only potential traffic impact is a change in the number of collisions around blind curves. Also, it is specialized during nighttime and on bad weather condition.

2.2 Discuss the application of the product and describe the primary end use as well any significant secondary applications.

The SMART convex mirror is high-tech Road and Safety equipment as compared to regular convex mirror. This product includes with a few extension or improvement with a development of technology. The convex mirror is also made from high quality material that can prevent it from bent or rust. The regular convex mirror may function well during daytime, but the 'SMART convex mirror' can operate during nighttime or even on bad weather condition. In form of size, color, shape and the actual function would be same as the regular convex mirror. But, in term of product performance criteria, the product would be different from the existing product with innovation and high-tech value added.