

## BLUEPRINT



### TECHNOLOGY SENSOR NET

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## **1.0 EXECUTIVE SUMMARY**

Technology is a huge thing within sport, it varies from mobile phones, televisions, sport equipment and more, there is no doubt that the importance of technologies used has increased over the years since sports have become a globally activity. With the implementation of technology, correct decisions have been made, improve technical development and sport performance. TechNet is one of the product renovations from normal net in order to improve performance in netting sports such as badminton, table tennis, volleyball and else. The aim of this product focuses on statistical information and observation for sport performance. This product also can connect with application software in many devices such as mobile phones, computer and else.

Therefore, our objective also to make customer satisfaction with our good service and quantity product. Hence, attract more customers and build a long good relationship with them. Combination of net product and sensor technology create new idea of technology in sports. Hence, this product will ease sport analyst to observe and analyse information during games without using complicated and old method. This product also has higher sensitivity to detect and classified information such as ball pass or something hit the net. In this project, we take design inspiration from the existing net product with the combination of sensor technologies which are touch sensor and motion detector. Then we start to aim to design portable, simple and easy to carry the device. Besides that, we are also always considering the technical and economic criteria such as functionality, working principle, aesthetic value and the most important is the safety of the product. In our new product development of Technology Sensor Net, the reason we design this product with simple and portable because we want to make this product more portable that can easily carry by the customer who want to use it anytime and anywhere like training or observation purpose.

Other than that, this product also can use for any sports activities and events. This product will give more advantage in sport such as accurate information and decrease time for observation. We are sure that our company's products are being marketed to attract the public and will provide a double benefit to the company because there is always something for everyone needs. This product will move forward as a big sport technology brands and compete with other sport technology company such as Fitbit, Omsignal, Playsight and else.

## **2.0 PRODUCT/ SERVICE DESCRIPTION**

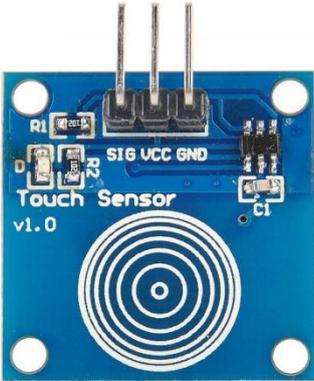
My product called technology sensor net (TechNet). This product is one of the innovations for improvement in netting sport such as badminton, table tennis and volleyball. This product is available for each customer segment either men or women in middle ages and it more focuses on sport people. Technology sensor net is the combination of net material and high-performance technologies which are touch sensor and dual technology motion detector. TechNet product is a convenient way to analyse the performance as for now the conventional way to collect all the data was by manual. It is an effortless technology to use referring on how it can connect with application software in many devices such as mobile phones, computer and else. This product also can use for sports events and will be used for observation and studies. This product will be provided one-year warranty and we are able to serve for the installation service for the customer and it is free of charge. Hence, our product also has its own technology patent and we are very sure other companies are unable to produce a product same as this product. This product can compete and expand same as other sport technology because the quality of technology and software development in this product.

During the product design process, we take design inspiration from the existing net product with the combination of sensor technologies which are touch sensor and motion detector. Then we start to aim to design portable, simple and easy to carry the device. Besides that, we are also always considering the technical and economic criteria such as functionality, working principle, aesthetic value and the most important is the safety of the product. In our new product development of Technology Sensor Net, the reason we design this product with simple and portable because we want to make this product more portable that can easily carry by the customer who want to use it anytime and anywhere like training or observation purpose. This product also can use for any sports activities and events.

Here is brief information about the Technology Sensor Net (TechNet). They come in with same measurement of net product according to specific sport. In this product, we can focus on netting sport such as badminton, table tennis, tennis and volleyball. Hence, this product will be design according to net measurement of the specific sports which are badminton (6.1m x 0.76m), tennis (10.06m x 0.91m), table tennis (1.83m x 0.153m) and lastly for volleyball (9.50m c 1.0 m). With the specific dimensions stated, the product has compacted with all the components as much smaller and this product has several components such as two adjustable motion detectors penal and two touch sensor that located at the net. The function of the touch sensor is basically to detect touch information when something hit the net. The motion detector will detect and classified movement information such as ball pass. This development of the technology used will allow the product to detect and classified accurate and details information for observation. This product has 100% sensitivity in touch and motion detector to respond and classified all the information receive.

Next components that are located at the net also has a rechargeable battery with huge capacity which is about 1500 (mAh) and display with LED indicator to optimise the battery level. With this battery capacity, basically we can use the devices with no problem at all and we can charge it directly by using standard micro USB charger. The motion detector panel also are adjustable and will be move and place form the net either when we want to use it or not. All these components are made by very high-quality materials in order to function well.

### 3.0 TECHNOLOGY DESCRIPTION

NO.	TECHNOLOGY	FEATURES
1.	<p>TOUCH SENSOR</p> 	<ul style="list-style-type: none"> <li>• Detect touch information when something hit the net.</li> <li>• When there is contact with the surface of the touch sensor, the circuit is closed inside the sensor and there is a flow of current.</li> <li>• The measurement circuit will detect the change in the capacitance and converts it into a trigger signal.</li> </ul>
2.	<p>INFRARED SENSOR</p> 	<ul style="list-style-type: none"> <li>• The most widely used motion system and when the system is armed, the motion sensors are activated.</li> </ul>
3.	<p>MICROWAVE SENSOR</p>	<ul style="list-style-type: none"> <li>• Sensor sends out microwave pulses and measures the reflection off a moving object.</li> <li>• Cover a larger area than infrared sensors, but they are vulnerable to electrical interference.</li> </ul>