Classwork - 1

Please Answer the following questions. This is a marked evaluation that will be counted towards your attendance marks. You wont be marked based on the answer you write. So kindly answer all of them. Additionally, answers such as "SKIP", "NULL", "PASS" won't be accepted. If such answers are found your attendance marks maybe deducted.

Again, just answering all the questions will ensure your full for this evaluation, no need to think critically to answer this classwork because based on your answers you wont be marked. You will simply be marked based on your attempt in answering these questions.

Your email address (**jafor15-9228@diu.edu.bd**) will be recorded when you submit this form. Not you? Switch account

* Required

You were asked to design a robot for harvesting crops in the hilly regions of Bangladesh. The robot would simply pick up the crop from the ground. What are the factors that you should keep in mind while choosing the sensors for that robot ? List the name of factors. You may or may not explain your choice of answer. *

Pressure Sensors
Factor:
As the name suggests, pressure sensor measures pressure. Tactile pressure sensors are useful in robotics as they are sensitive to touch, force and pressure. If you design a robot hand and need to measure the amount of grip and pressure required to hold an object, then this is what you would want to use.

You were asked to design a robot for corona infected patient. The robot would forward medicines and food to the patient in a Cabin of Square Hospital. What are the factors that you should keep in mind while choosing the sensors for that robot ? List the name of factors. You may or may not explain your choice of answer. *

Contact Sensor

Factor:
Contact sensors are those which require physical contact against other objects to trigger. A push button switch, limit switch or tactile bumper switch are all examples of contact sensors. Limit SwitchThese sensors are mostly used for obstacle avoidance robots.

You were asked to design a robot for a car manufacturing industry. The robot would simply tighten up the screws on the car doors that automatically comes towards the robot through the convoy belt What are the factors that you should keep in mind while choosing the sensors for that robot ? List the name of factors. You may or may not explain your choice of answer. *

Propriceptive Sensors will be best for this purpose
Factor:
it used to measure values internal to the system (robot); e.g. motor speed, wheel load, robot arm joint angles, battery voltage etc.

You were asked to design a robot for counting money in a bank. The robot also checks whether the money is fake or not. It will count the money, check whether it is fake or not and then it will go and place it in a bag near the vault. What are the factors that you should keep in mind while choosing the sensors for that robot ? List the name of factors. You may or may not explain your choice of answer. *

UV (Ultra Violet) Light Sensor
Factor: sees the banknote images with high frequency light.
Usually banknotes do not reflect any UV light whereas commonly used photocopied counterfeits reflect UV light. Banknote has magnetic material. Magnetic sensor captures magnetic field for the analysis.Both reflected and penetrated images are used.

You were asked to design a robot/automated card for driving you through the Bangabandhu Safari Park. It will go through the road, stop if there are any animals on the road, wait for it to move and then again continue its journey. What are the factors that you should keep in mind while choosing the sensors for that robot ? List the name of factors. You may or may not explain your choice of answer. *

I think Proximity Sensor will be best for this purpose because

Factor: it detect the presence of nearby object without any physical contact .In proximity sensor transmitter transmits an electromagnetic radiation and receiver receives and analyzes the return signal for interruptions. if any animal comes toward this sensor can detect it and stop the car.

A copy of your responses will be emailed to jafor15-9228@diu.edu.bd.

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