AR Book Learnopedia

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https://arbooklearnopedia.github.io/official/

Overview

AR (Augmented Reality) Book: Learnopedia is a book containing array of image targets with contents including Engineeering, Science and Technology. It includes an android application which is used to scan this book making it interactive with combination of visual, sound and animations. The book includes multiple pages for interacting with the user using an android application which includes 2D to 3D image conversion, video player and opening website using virtual buttons. All the image targets will be stored in the online Vuforia database which can be easily downloaded and extracted. A single Vuforia database can only be used for a single project and the image target must also be scaled to improve the quality of the image target. The android application and the PDF version of the book will also be available over the internet on the official project website and at the end of the project completion will be deployed on the Google Play store positively. Since AR Book: Learnopedia is an open source project the website will also include the source code of the complete project. The 3D models for the project will be made from blender software which later, can be deployed on the Unity application. The motion and interactive interface will be controlled by the programming Language C# which is a flexible language for controlling 3D objects and other interactive objects.

Acknowledgement

I would like to thank my friends and families for reading this book and I hope the people reading this book finds it useful and informative and I hope you like the experience of Augmented Reality amazing like we find it.

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SCIENCE

Science

Atoms

Electric Circuit







Atoms are the basic units of matter and the defining structure of elements. The term "atom" comes from the Greek word for indivisible, because it was once thought that atoms were the smallest things in the universe and could not be divided. We now know that atoms are made up of three particles: protons, neutrons and electron.



When a circuit is complete, or losed, electrons can flow from one end of a battery all the way aroumd, through the wires, to the other end of the battery. In order to start flowing, you need a closed circuit . Therefore, the witch in the circuit enables the flow of electrons from the battery to the bulb and makes it glow.

Guide: Open the Learnopedia application and bring the camera near to this page, three buttons will appear for each model. Click the required button and when finished click the back button to come back the buttons menu. For Human Skepage bring the camera near to the page and press the buttons manually by hand to display the corresponding models.

SCIENCE



TECHNOLOGY

Augmented Reality



Augmented reality (AR) is an interactive experience of a real-world environment where the objects that reside in the real world are enhanced by computer-generated perceptual information, sometimes across multiple sensory modalities, including visual, auditory, haptic, somatosensory and olfactory.

Computer Vision







Computer vision is an interdisciplinary scientific field that deals with how computers can gain high-level understanding from digital images or videos. Bring the camera near to the above image . It will try to recognize the image and display the information of the recognized image,



Este é um texto escrito no idioma português que você não consegue entender. A tradução automática por máquineural (NMT) é na uma abordagem para automática tradução que usa uma rede neural artificial para prever a probabilidade de uma sequência de palavras, tipicamente modelando frases inteiras em um único modelo integrado.

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TECHNOLOGY



ENGINEERING

C Programming

Robotic Arm

Sand Casting



We will learn about simple programming in C. The task is to write a program for displaying hello world. Arrange the puzzle in sequence and press the check button. If the sequence is in correct order "Hello World will be displayed if not nothing will be displayed. Press the icon on the top left corner for help.



We will learning about different parts of a robotic arm. A 3D model will be displayed onto the screen which includes a robotic arm and various sliders to move each objects labeled with the coresponding name of the parts. Move the sliders to move the parts of the robotic arm and pick and drop the object on the screen.



We will be learning about sand crafting. A small animated video will be played explaining about the various process in sand casting and there are also 3D models which are the various equipments used in sand casting press the item to know more about them.

Guide: Open the Learnopedia application and bring the camera near to this page, three buttons will appear for each model. Click the required button and when finished click the back button to come back the buttons menu. For isometric projection page bring the camera near to the page and press the buttons manually by hand to display the corresponding models.

ENGINEERING



Augmented Reality is an interactive experience of a real world environment where the objects that reside in the real world are enhanced by computer generated perceptual information. The purpose of the project is to educate about basic Science, Technology and Engineering topics in an interactive way with the help of 3D models, audios, videos, UI buttons other visual effects. The system is based on a android application which will take the input of the system camera and display the 3D models on the screen. A local database storage will hold the contents. Above all, we hope to provide a comfortable user experience along with the best education content available without any cost. The goal of Augmented Reality is to create a system in which the user cannot tell the difference between the real world and the virtual augmentation of it .In traditional educational books we must read the contents completely to have a basic understanding about a topic and even after that we can't guarantee that the person reading it will understand the topic completely, since the topic may include various diagrams and technical contents which the user may not be familiar. To make the learning process much better and interactive the introduction of "AR Book: Learnopedia" paves way in which, is a fun way of learning and understanding difficult topics and concepts. The book contains topics including Science and Technology. There are various image targets in every pages of the book which when clicked will display 3D models, animations ,sound and videos which makes the learning process much more fun.





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