

I'm not robot!

What is due directive wheel chair?

The Eye Directive wheelchair is a mobility-aided device for persons with moderate/severe physical disabilities or chronic diseases as well as for the elderly. There are various interfaces for wheelchair available in the market, still they remain under-utilized, the reason being the ability, power and mind presence required to operate them. The proposed model is a possible alternative. In this model, we use the optical-type eye tracking system to control powered wheel chair. User's eye movements are



Working with images taken by the camera

The series of images taken by the camera is transmitted to the base station (computer/ laptop). The images are processed using Open Source Computer Vision Library (OpenCV), where they are converted into .xml file. OpenCV processing yields the length and width of the detected object(pupil). The length and width of each quadrant is prescribed in the OpenCV algorithm. The position helps to calibrate the quadrant in which the pupil lies, which helps us to find the direction in which the eye is pointing. The processing basically divides the image in three quadrants (left, right and center). If position of the pupil lies in the right quadrant then the wheelchair moves left. If it lies in the left quadrant, wheelchair moves right. If the object lies in the centre the wheelchair moves straight.

Determine the Height of Drop-Offs

For some students, it is difficult to visually determine the height of drop-offs. Below is one strategy for using a cane to measure a drop-off.

1. Locate the drop-off with the cane.
 2. Pull up to the edge of the drop-off (just like finding the top of the stairs).
 3. With the cane tip at the bottom of the drop-off, lean the cane against a solid object, for example, handlebars, joystick box, lap desk, or knee.
 4. Place one hand flat on the object with the cane between the thumb and index finger.
 5. Place the other hand flat on top of the first hand with the cane between the thumb and index finger.
 6. Keeping the first hand on the object, lift the cane with the second hand until the tip clears the top of the drop-off.
 7. Rotate the top hand down until the palm is against the cane.
 8. If the two hands touch, the drop-off is probably small enough to be navigated. If the hands do not touch, the drop-off is probably too high to navigate.

Watch video CSer: Care Techniques: Determine the height of drop-offs.



University of Szeged, Department of Informatics e-mail: gmester@inf.u-szeged.hu Abstract The paper deals with the wireless sensor-based More information Intelligent Home Automation and Security System Ms. Radhamani N Department of Electronics and communication, VVIET, Mysore, India ABSTRACT: In todays scenario safer home security is required, As the technology More information Tutorial Overview: The basic aim of the project is to find an alternative to the usual RF circuits that are seen so frequently and replace them with cell-phone operated module. The advantages of a cell-phone More information Autonomous Mobile Robot-I Sebastian, S.E and Ang, M. H. Jr. Department of Mechanical Engineering National University of Singapore 21 Lower Kent Ridge Road, Singapore 119077 ABSTRACT This report illustrates More information SMEMA Surface Mount Equipment Manufacturers Association SMEMA Mechanical Equipment Interface Standard Introduction The SMEMA machine interface standards were developed to facilitate the interface of equipment More information Selecting and Implementing H-Bridges in DC Motor Control Daniel Phan A37005649 ECE 480 Design Team 3 Spring 2011 Abstract DC motors can be used in a number of applications that require automated movements. More information Volume 5, Issue 4, 2015 ISSN: 2277 128X International Journal of Advanced Research in Computer Science and Software Engineering Research Paper Available online at: www.ijarcsse.com A System for Car Accident More information Óbuda University e Bulletin Vol. 2, No. 1, 2011 LEGO NXT-based Robotic Arm Ákos Hámori, János Lengyel, Barna Reskó Óbuda University barna.resko@arek.uni-obuda.hu, hamoriakos@gmail.com, polish1987@gmail.com More information EPJ Web of Conferences 68, 00025 (2014) DOI: 10.1051/epjconf/20146800025 C Owned by the authors, published by EDP Sciences, 2014 Design and implementation of modular home security system with short messaging More information Copyright 2012 American Scientific Publishers All rights reserved Printed in the United States of America Journal of Computational Intelligence and Electronic Systems Vol. 1, 1 6, 2012 Sensor-Based Robotic More information 5th Meeting of the U.S. Software System Safety Working Group April 12th-14th 2005 @ Anaheim, California USA 1 Introduction Adaptive Cruise System Overview Adaptive Cruise () is an automotive feature that More information Implementation of Knock Based Security System Gunjan Jewani Student, Department of Computer science & Engineering, Nagpur Institute of Technology, Nagpur, India ABSTRACT: Security is one of the most critical More information Human Detection Robot using PIR Sensors Saravana Kumar K, Priscilla P, Germiya K Jose, Balagopal G Abstract: Human Detection Robot is a robot that can detect the presence of human; it sends the signal More information INTRODUCTION TO SERIAL ARM A robot manipulator consists of links connected by joints. The links of the manipulator can be considered to form a kinematic chain. The business end of the kinematic chain of More information Info and Centering A servo is a mechanical motorized device that can be instructed to move the output shaft attached to a servo wheel or arm to a specified position. Inside the servo box is a DC motor More information E190Q Lecture 5 Autonomous Robot Navigation Instructor: Chris Clark Semester: Spring 2014 1 Figures courtesy of Siegwart & Nourbakhsh Control Structures Planning Based Control Prior Knowledge Operator More information Tamkang Journal of Science and Engineering, Vol. 12, No. 3, pp. 249 258 (2009) 249 Obstacle Avoidance Design for Humanoid Robot Based on Four Infrared Sensors Ching-Chang Wong 1 *, Chi-Tai Cheng 1, Kai-Hsiang More information Real Time Wireless based Train Tracking, Track Identification and Collision avoidance System for Railway Sectors 1 R. Immanuel Rajkumar, 2 Dr.P. E. Sankaranarayanan, and 3 Dr.G.Sundari 1 Research Scholar, More information Developing a Sewer Inspection Robot through a Mechatronics Approach Alireza Hadi, Gholamhosseini, Mohammadi Abstract Sewerage is a harsh environment which requires periodically inspection. The inspection More information NXT Generation Robotics Introductory Worksheets School of Computing University of Kent Copyright c 2010 University of Kent NXT Generation Robotics These worksheets are intended to provide an introduction More information Quest- 1 Satellite Functional Description Overview The Quest- 1 Satellite is based on the CubeSat Standard that measures 10 cm x 10 cm x 10 cm and weighs less than 1.33 kilograms. The Quest- 1 Satellite More information Project Development Plan Roverwerx A.R.M. IRP Santa Clara University Richard Rasay 1 TABLE OF CONTENTS Introduction 1 Software Design.3 Robot-Side Application.5 Client-Side Application.7 Current Status More information Design and Implementation of an Accidental Fall Detection System for Elderly Enku Yosef Kefyalew 1, Abubakr Rahmtalla Abdalla Mohamed 2 Department of Electronic Engineering, Tianjin University of Technology More information EXPERIMENT O-6 Michelson Interferometer Abstract A Michelson interferometer, constructed by the student, is used to measure the wavelength of He-Ne laser light and the index of refraction of a flat transparent More information 1 THE MODULAR INTEGRATED STACKABLE LAYERS SYSTEM: A NASA DEVELOPMENT PARTNERSHIP Tanner L. Perkins, Kelson G. Astley, Ty B. Navarrete, Paul B. Delaune, and Joseph A. Morgan Abstract Electronic Systems More information Revised Fall 2011 Care and Use of the Compound Microscope Objectives After completing this lab students should be able to 1. properly clean and carry a compound and dissecting microscope. 2. focus a specimen More information WIRELESS BLACK BOX USING MEMS ACCELEROMETER AND GPS TRACKING FOR ACCIDENTAL MONITORING OF VEHICLES PROJECT REFERENCE NO. : 37S0430 COLLEGE BRANCH GUIDE : S.G.BALEKUNDRI INSTITUTE OF TECHNOLOGY,BELGAUM More information Eric Mitchell April 2, 2012 Application Note: Control of a 180 Servo Motor with Arduino UNO Development Board Abstract This application note is a tutorial of how to use an Arduino UNO microcontroller to More information Automated Recording of Lectures using the Microsoft Kinect Daniel Sailer 1, Karin Weiß 2, Manuel Braun 3, Wilhelm Büchner Hochschule Ostendstraße 3 64319 Pfungstadt, Germany 1 info@daniel-sailer.de 2 weisswieschwarz@gmx.net More information IOSR Journal of Electrical and Electronics Engineering (IOSR-JEEE) e-issn: 2278-1676 Volume 4, Issue 5 (Jan. - Feb. 2013), PP 29-34 Access Control Using Smartcard And Passcode Omorogiuwa Eseosa 1., Uhunmwangho More information Autonomous Advertising Mobile Robot for Exhibitions, Developed at BMF Kucsera Péter (kucsera.peter@kvk.bmf.hu) Abstract In this article an autonomous advertising mobile robot that has been realized in More information DESIGN OF 6 DOF ROBOTIC ARM CONTROLLED OVER THE INTERNET G. Rajiv and Sivakumar Sathyabama University, Chennai, India E-Mail: Rajiv.srkm@gmail.com ABSTRACT The purpose of the project is to build a robotic More information EasyC Programming Tips PART 1: EASYC PROGRAMMING ENVIRONMENT The EasyC package is an integrated development environment for creating C Programs and loading them to run on the Vex Control System. Its Opening More information 8 TAGARNO AS Sandøvej 4 8700 Horsens Denmark Tel: +45 7625 1111 Mail: mail@tagarno.com TAGARNO 2 Quick Image Capture Split Screen Function Magnification up to 320x Easy Height Adjustment SD-card ESD Security More information 3D Vision An enabling Technology for Advanced Driver Assistance and Autonomous Offroad Driving AIT Austrian Institute of Technology Safety & Security Department Manfred Gruber Safe and Autonomous Systems More information Tips and Technology For Bosch Partners Current information for the successful workshop No. 04/2015 Electrics / Elektronics Driver Assistance Systems In this issue, we are continuing our series on automated More information C Indoor Surveillance Security Robot with a Self-Propelled Patrolling Vehicle Hou-Tsan Lee, Wei-Chuan Lin, Jing-Siang Huang Department of Information Technology, TakMing University of Science and Technology More information Leonardo Journal of Sciences ISSN 1583-0233 Issue 20, January-June 2012 p. 31-36 Microcontroller Based Low Cost Portable PC Mouse and Keyboard Tester Ganesh Sunil NHIVEKAR *, and Ravidra Ramchandra MUDHOLKAR More information PID Control by Ben Rowland, April 2011 Abstract PID control is used extensively in industry to control machinery and maintain working environments etc. The fundamentals of PID control are fairly straightforward More information Collided Vehicle Position Detection using GPS & Reporting System through GSM M.M.Raghavendra 1, N.Sahitya 2, N.Nikhila 3, S.Sravani 4 1 Asst.Professor ECE Department, 2 Student, 3 Student, 4 Student, More information Indoor Surveillance System Using Android Platform 1 Mandar Bhamare, 2 Sushil Dubey, 3 Praharsh Fulzele, 4 Rupali Deshmukh, 5 Dr. Shashi Dugad 1,2,3,4,5 Department of Computer Engineering, Fr. Conceicao More information International Journal of Computer Science and Engineering (IJCSE) ISSN(P): 2278-9960; ISSN(E): 2278-9979 Vol. 4, Issue 2, Mar 2015, 29-38 IASET ANDROID BASED HOME AUTOMATION AND VISION SURVEILLANCE USING More information International Journal of Electronic and Electrical Engineering. ISSN 0974-2174, Volume 7, Number 5 (2014), pp. 443-448 International Research Publication House Android Phone Controlled More information Multi-Touch Control Wheel Software Development Kit User's Guide V3.0 Bulletin #1204 561 Hillgrove Avenue LaGrange, IL 60525 Phone: (708) 354-1040 Fax: (708) 354-2820 E-mail: instinct@grayhill.com www.grayhill.com/instinct More information Laser Merge Module Document # SU-256521-09 Rev A The information presented in this document is proprietary to Spectral Applied Research Inc. and cannot be used for any purpose other than that for which More information Tutorial 1. Introduction to moway robot www.moway-robot.com 1 Index INTRODUCTION... 2 MOWAY ROBOT... 2 MOWAY PERSON COMPARISON... 6 HEARING SENSE EXAMPLE... 11 VISION EXAMPLE... 12 TOUCH SENSE EXAMPLE... More information 1 CE801: Intelligent Systems and Robotics Lecture 3: Actuators and Localisation Prof. Dr. Hani Hagras Robot Locomotion Robots might want to move in water, in the air, on land, in space.. 2 Most of the More information 1. INTRODUCTION FSLIMRF is a fully wireless, battery-powered infrared beam barrier for the protection of doors and windows with alarm radio transmission. The barrier is made up of two aluminium sections More information The Design of a Low-Cost and Robust Linkage Position Sensor Project Proposal By: Leann Vernon and Phillip Latka Advisor: Dr. Jose Sanchez December 16th, 2013 Table of Contents Introduction 2 Project Description. More information Digital Systems Based on Principles and Applications of Electrical Engineering/Rizzoni (McGraw Hill Objectives: Analyze the operation of sequential logic circuits. Understand the operation of digital counters. More information Instructions Manual Flexia BGA Inspection Systems This manual describes how to use Flexia BGA Inspection System Optilia Instruments 1 AB Contents 1. Safety and maintenance Instructions 3 2. About Flexia More information Laserlyte-Flex Alignment System LaserLyte-Flex The LaserLyte-Flex Alignment System is a unique, interchangeable, low cost plug and play laser system. Designed specifically for aligning and positioning More information iv HOME ALARM MONITORING NETWORK GOH SWEE TIAN This thesis is submitted as partial fulfillment of the requirements for the award of the Bachelor of Electrical Engineering (Hons.) (Electronics) Faculty More information Navigation Aid And Label Reading With Voice Communication For Visually Impaired People A.Manikandan 1, R.Madhuranthi 2 1 M.Kumarasamy College of Engineering, mani85a@gmail.com,karur,india 2 M.Kumarasamy More information AEO Head Movement Tracker X-GYRO 1000 USER MANUAL(V1.1bata 20091019) Introduction: X-GYRO 1000 is a two axis head tracking system, based on G sensor technique, designed for tracking complicated three-dimensional More information Interference Physics 102 Workshop #3 Name: Lab Partner(s): Instructor: Time of Workshop: General Instructions Workshop exercises are to be carried out in groups of three. One report per group is due by More information Journal of Modern Science and Technology Vol. 3. No. 1. March 2015 Issue. Pp.80-87 Design and Development of SMS Based Wireless Home Appliance Control and Security System Md. Abdullah Al Asad *, Md. Al More information Collision Prevention and Area Monitoring with the LMS Laser Measurement System PDF processed with CutePDF evaluation edition www.cutepdf.com A v o i d..... collisions SICK Laser Measurement Systems are More information EQUIPMENT SET UP RECURVE BOW Archery Australia Inc Coaching and Standards Committee Proudly Sponsored By EQUIPMENT SET UP RECURVE BOW It is important that equipment to be used must be set up correctly More information Automated Container Handling in Port Terminals Overview. Shipping containers revolutionized the movement of goods, driving change and efficiency throughout the global supply chain. The next revolution More information Towed Streamer Positioning System Performance Data s towed streamer positioning system reduces the positional uncertainty for the entire towed streamer array by integrating horizontal and vertical streamer More information Zigbee-Based Wireless Distance Measuring Sensor System Ondrej Sajdl 1, Jaromír Zákl 1, Radimír Vrba 1 1 Department of Microelectronics, Brno University of Technology, FEEC, Udalni 53, 602 00 Brno, Czech More information Frequently Asked Questions Basic Facts What does the name ASIMO stand for? ASIMO stands for Advanced Step in Innovative Mobility. Who created ASIMO? ASIMO was developed by Honda Motor Co., Ltd., a world More information Innovative Practices in Optimal Utilization of Solar Energy (Solar Tracking System) Dr. G. Suresh Babu EEE Dept., C.B.I.T Abstract: As the demand is ahead of the supply there is a dire need for efficient More information Sensors and Cellphones What is a sensor? A converter that measures a physical quantity and converts it into a signal which can be read by an observer or by an instrument What are some sensors we use every More information Servo Motors (SensorDAQ only) Project 7 Servos are small, relatively inexpensive motors known for their ability to provide a large torque or turning force. They draw current proportional to the mechanical More information Unit A451: Computer systems and programming Section 2: Computing Hardware 4/5: Input and Output Devices Input and Output devices Candidates should be able to: (a) understand the need for input and output More information 118 ELECTRONICS, VOL. 17, NO. 2, DECEMBER 2013 Solar Cybertech: A Competition of Digitally Controlled Vehicles Powered by Solar Panels O. García, J. A. Oliver, D. Díaz, D. Meneses, P. Alou, M. Vasić, J. More information Cat Detect for Surface Mining Applications Enhance Your Site's Safety through Increased Operator Awareness Configurable to suit your operation's needs, Cat MineStar System is the industry's broadest suite More information Introduction to Electronic Signals Oscilloscope An oscilloscope displays voltage changes over time. Use an oscilloscope to view analog and digital signals when required during circuit diagnosis. Fig. 6-01 More information Evaluation Board for Universal Frequency-to-Digital Converters UFDC-1 and UFDC-1M-16 EVAL-UFDC-1/UFDC-1M-16 FEATURES Full-Featured Evaluation Board for the Universal Frequency-to-Digital Converters UFDC-1 More information AUTOMATIC LPG BOOKING, LEAKAGE DETECTION AND A REAL TIME LPG MEASUREMENT MONITORING SYSTEM R.Padmapriya, E.Kamini, priyaece973@gmail.com,kamnenpa007@gmail.com, IV Year Electronics and Communication Engineering, More information Somero SiteShape System www.somero.com info@somero.com Somero Enterprises, LLC Corporate Office: 82 Fitzgerald Drive Jaffrey, NH 03452 603 532 5930 - fax The Somero SiteShape System More information Light and its effects Light and the speed of light Shadows Shadow films Pinhole camera (1) Pinhole camera (2) Reflection of light Image in a plane mirror An image in a plane mirror is: (i) the same size More information week 02 Digital Input and Output RGB LEDs fade with PWM 1 Microcontrollers Output Transducers actuators (e.g. motors, buzzers) Arduino Input Transducers sensors (e.g., switches, levers, sliders, etc.) More information A Method for Image Processing and Distance Measuring Based on Laser Distance Triangulation Saulo Vinicius Ferreira Barreto University of Pernambuco UPE saulo.barreto@gmail.com Remy Eskinazi Sant Anna University More information Wearable Finger-Braille Interface for Navigation of Deaf-Blind in Ubiquitous Barrier-Free Space Michitaka Hirose Research Center for Advanced Science and Technology, The University of Tokyo 4-6-1 Komaba More information Gesture Sensors Revolutionize User Interface Control By Dan Jacobs Senior Product Manager, ams AG www.ams.com Designers face More information