GanttProject Report

Project : Image-Audio converter

Start : 7/1/13

End : 10/30/13

Organization : CUCEI

Web Link :

Description :

Prótesis no invasiva audio-visual de asistencia para personas con discapacidad visual utilizando un sensor de ultrasonido y una cámara VGA. El sistema procesa las imágenes, sus formas básicas y su luz, convirtiéndolas en una alta gama de sonidos melódicos compuestos y estos pueden ser interpretados por medio de un par de auriculares estéreo (L-R). Un usuario aprenderá a usar el sistema en la vida diaria, aprendiendo los sonidos de varios objetos, y sus colores.

Date : Aug 11, 2013 10:08:31 PM

Tasks List

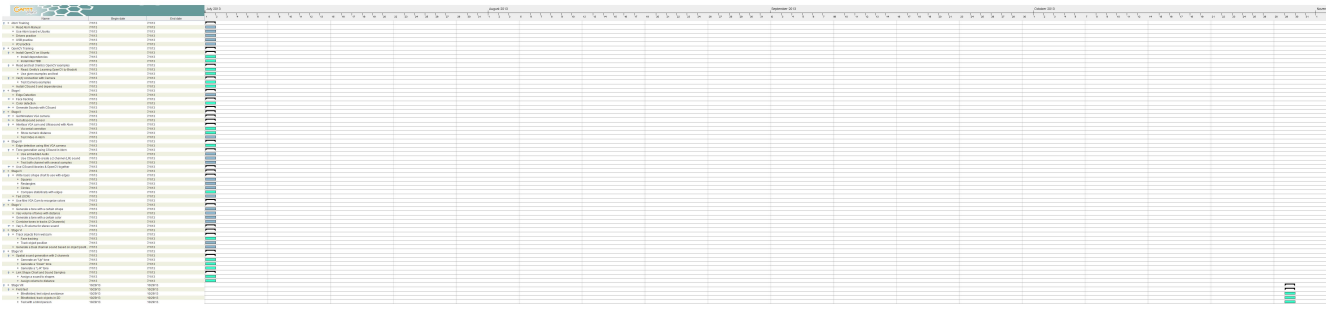
Name	Begin date	End date	Resources
Atom Training	7/1/13	7/1/13	
Read Atom Manual	7/1/13	7/1/13	
Use Atom board w Ubuntu	7/1/13	7/1/13	
Drivers practice	7/1/13	7/1/13	
USB practice	7/1/13	7/1/13	
I/O practice	7/1/13	7/1/13	
OpenCV Training	7/1/13	7/1/13	
Install OpenCV on Ubuntu	7/1/13	7/1/13	
Install dependencies	7/1/13	7/1/13	
Install Intel TBB	7/1/13	7/1/13	
Read and test Oreilly's OpenCV examples	7/1/13	7/1/13	
Read: Oreilly's Learning OpenCV by Bradski	7/1/13	7/1/13	
Use given examples and test	7/1/13	7/1/13	
Veryfy connection with Camera	7/1/13	7/1/13	
Test Camera examples	7/1/13	7/1/13	
Install CSound 5 and dependencies	7/1/13	7/1/13	
Stage I	7/1/13	7/1/13	
Edge Detection	7/1/13	7/1/13	
Face tracking	7/1/13	7/1/13	
Get webcam	7/1/13	7/1/13	
Color detection	7/1/13	7/1/13	
Generate Sounds with CSound	7/1/13	7/1/13	
Use Edges or Faces for output	7/1/13	7/1/13	
Stage II	7/1/13	7/1/13	
Get Miniature VGA camera	7/1/13	7/1/13	
I2c, Serial, etc for MCU interfacing	7/1/13	7/1/13	
Get ultrasound sensor	7/1/13	7/1/13	
Measure distance with an MCU	7/1/13	7/1/13	
Interface VGA cam and Ultrasound with Atom	7/1/13	7/1/13	
Via serial conection	7/1/13	7/1/13	
Show numeric distance	7/1/13	7/1/13	
Test Video in Atom	7/1/13	7/1/13	
Stage III	7/1/13	7/1/13	
Edge detection using Mini VGA camera	7/1/13	7/1/13	
Tone generation using CSound in Atom	7/1/13	7/1/13	
Use embedded Audio	7/1/13	7/1/13	
Use CSound to create a 2 channel (LR) sound	7/1/13	7/1/13	
Test both channel with several	7/1/13	7/1/13	

samples		
Use CSound libraries & OpenCV together	7/1/13	7/1/13
Make a dual channel sound based on edge detection	7/1/13	7/1/13
Stage IV	7/1/13	7/1/13
Write basic shape chart to use with edges	7/1/13	7/1/13
Squares	7/1/13	7/1/13
Rectangles	7/1/13	7/1/13
Circles	7/1/13	7/1/13
Compare statistically with edges	7/1/13	7/1/13
Text (OCR)	7/1/13	7/1/13
Use Mini VGA Cam to recognize colors	7/1/13	7/1/13
Make an Audio output based on colors	7/1/13	7/1/13
Stage V	7/1/13	7/1/13
Generate a tone with a certain shape	7/1/13	7/1/13
Vary volume of tones with distance	7/1/13	7/1/13
Generate a tone with a certain color	7/1/13	7/1/13
Combine tones in tracks (2 Channels)	7/1/13	7/1/13
Vary L-R volume for stereo sound	7/1/13	7/1/13
Using numeric distance from ultrasound	7/1/13	7/1/13
Stage VI	7/1/13	7/1/13
Track objects from webcam	7/1/13	7/1/13
Face tracking	7/1/13	7/1/13
Track object position	7/1/13	7/1/13
Generate a Dual channel sound based on object position	7/1/13	7/1/13
Stage VII	7/1/13	7/1/13
Spatial sound generation with 2 channels	7/1/13	7/1/13
Generate an "Up" tone	7/1/13	7/1/13
Generate a "Down" tone	7/1/13	7/1/13
Generate a "L-R" tone	7/1/13	7/1/13
Link Shape Chart and Sound Samples	7/1/13	7/1/13
Assign a sound to shapes	7/1/13	7/1/13
Assign volume to distance	7/1/13	7/1/13
Stage VIII	10/29/13	10/29/13
Field test	10/29/13	10/29/13
Blindfolded, test object avoidance	10/29/13	10/29/13
Blindfolded, track objects in 2D	10/29/13	10/29/13
Test with a blind person	10/29/13	10/29/13

Resources List

Name	Default role
Rodrigo Flores	project
	manager
Ricardo Bahamon	project
	manager
David Rodriguez	project
	manager

Gantt Chart



Resources Chart