PROJECT 2

Design for people with Speech and Hearing Disabilities, for Mirakle Courier

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Guide: Prof. Mandar Rane

CERTIFICATE

Design for people with Speech and Hearing Disabilities

Visual Communication Project 2 Guide: Professor Mandar Rane

Approved for the partial fulfillment of the requirement or the degree of Masters of Design in Visual Communication at the Industrial Design Centre Indian Institute of Technology Bombay

Student: Anindita Mandal (08625008)

Guide: _______

Chairperson: ______

Internal examiner: ______

External examiner: ______



I would like to thank the following people without whom this Project would not have been possible:

Professor Mandar Rane for having inspired me to analyse the working system of Mirakle Courier every moment.

Dhruv Lakhra CEO of the company for giving me chance to work on this project and understand the world of Deaf and Speechless people.

Mirakle Courier Staff for having helped me in understanding the working process/system of the company.

Arindam Mandal for encouragement and support without which, I would not have had the courage to do this project.

A very special thanks to my parents, Akash, Subhro, Vinish, Vanya, Anirban and all my friends for doing very special things.

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Abstract

The aim of this project is to understand the working system of Mirakle Courier and their employees as all the employe's are speech and hearing disables. The project also aims at understanding the working of courier system and make changes in the existing system to make the work more efficient and fast.

The target audience being the employees of mirakle courier, the project aimed at designing a working system for them which will include stationary design, design and redesign of various forms, computer base application etc. Which will make the working system of Mirakle Courier fast and efficient.

Introduction

In churchgate there is a courier service known as Mirakle Couriers. The people who work there are all speech and hearing disables. These people have certain spatial and visual communication issues in their daily official life.

A courier company employ people to deliver messages, packages and mail. Couriers are distinguished from ordinary mail services by features such as speed, security, tracking, signature, specialization and individualization of services, and committed delivery times, which are optional for most everyday mail services.

A courier company's main aim is to provide highest customer service possible by a fast and efficient delivery system. There is an increasing need for accurate and fast sorting work to compete with other similar service providers.

It all starts with the mailing system. No matter the size of the organization, a well designed system can increase productivity, maximize efficiency and streamline the workflow. Large chunks of mail has to be delivered everyday from magazines, bills, personal mails, etc of various sizes. By providing an organized method of handling the mail ensures a fast and efficient work.

I want to explore and study this area in detail and want to work on the working system of the company.

Who are They



Mirakle Courier's Founder and CEO, is Dhruv Lakra, an Oxford graduate.

Mirakle Courier is a courier company with a difference as they employ only speech and hearing disable adults. Deafness is an invisible disability, and has been largely ignored in India. All the staff members including delivery personnel are speech and hearing disables.

Their business model is based on creating a service driven profitable enterprise that uses the speech and hearing disables. To this end, they marry professional excellence with social cause. While their services are currently available only in Mumbai, they plan to extend their operations to other cities soon.

They are not a charity but a social business, where the social element is embedded in the commercial operations. Their corporate clients have shown trust in their business and their cause by availing their services, started in November 2008

Their list of clients includes Mahindra & Mahindra, The Aditya Birla Group, Victory Art Foundation, JSW Group, Indian Hotels Company, Godrej & Boyce and Essel Propack.¹

http://miraklecouriers.com/about_us/what_we_do.htm
 november o9)





Why Deaf

India has one of the highest speech and hearing disable populations in the world. It is estimated that 6 percent of India's population suffers from some kind of hearing loss, 32 percent of hearing disabled citizens suffer from profound hearing disability and 39 percent suffer from severe hearing disability resulting in one of the largest deaf populations globally.

A staggering 66 percent of the Indian speech and hearing disable population is unemployed.¹ Due to strong stigma in the society there are virtually no job opportunities for this isolated population.

Outdated vocations such as candle making have shunned this community; Mirakle Couriers wants to change this grim scenario. It wants to economically empower this community and make them more visible in the Indian society.²

http://www.echoinggreen.org/fellows/dhruv-lakra (12 december 09)

^{2.} http://miraklecouriers.com/about_us/why_deaf.htm (12 december 09)

Vision of Mirakle courier¹



Vision:

Economically mainstream low-income deaf adults through a corporate courier service.

Their Mission:

Creating an environment that allows deaf adults to utilize their full potential and become economically independent.

Service Excellence:

They are a business enterprise with a social cause. Making their business financially viable is critical to their success and for the future of their employees. Being in a service-based industry, service excellence is the key for their growth and sustainability.

Professional Grooming:

They believe that through proper training and grooming deaf adults can reach their optimal potential. Hence, at Mirakle Couriers they lay a great emphasis on professional grooming, personal hygiene and training of each employee.

Economic opportunities as means of inclusion:

Creating employment and business opportunities for the deaf is the ideal way of bringing about their inclusion in mainstream of society. Economic independence will enhance their socio-economic status and self-esteem.

^{1.} http://miraklecouriers.com/about_us/vision.htm (14 december 09)



1



Service Areas

"Their pick-up and delivery services are available all over Mumbai, excluding Thane and Navi Mumbai."

Western Suburbs - From Churchgate to Borivali Central Suburbs - From Victoria Terminus to Mulund Harbour Line - From Victoria Terminus to Mankurd

^{1.} http://www.indika.it/wp-content/uploads/2008/12/victoria_terminus_1.jpg (14 december 09)

^{2.} http://www.outlookindia.com/images/photoessays/mumbai_churchgate_station_060712.jpg, (14 december 09)

Mirakle worker's

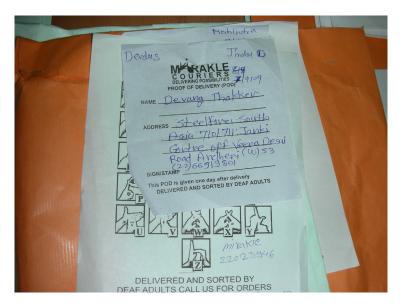


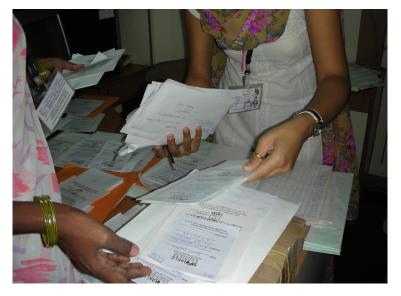
Company Started with 2 people now has a total strength of 45. Underprivileged speech and hearing disable boys are hired for pick-ups and deliveries and the speech and hearing disable girls do the sorting. They all know Indian Sign Language, and can read Lips. SMS is lifeline for them. All of them are not equally educated.

Data collection and Analysis

How the company works: System Level

- Consignment pick up from diffrent companies in the evening
- Come back to Mirakle Courier office same day.
- Next day morning Counting of the consignment.
- Addresses copied to the POD's (proof of delivery slip).
- Attachment of sign language sheet & POD.
- Sorting begins area wise & respective boy.
- Final counting of no. of consignments given to each boys
- Area wise.
- Delivery to pespective addresses.
- Returning signed POD's to the office.
- Sorting of signed POD's
- Returning POD's to respective companies.





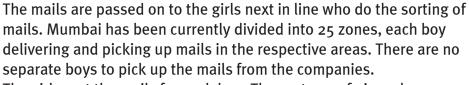
Work Process

Mirakle Couriers has a 1 day delivery system, where the mails are picked up and the delivery is done the next day.

The working cycle is explained as follows:

The day starts with the sorting of mails which are to be delivered that day. The mails collected by the boys from the companies are locked up overnight. First step is counting of the consignments of each company and noted. This is followed by filling up of PODs and sign language sheets and attaching them with the respective mails. A tracking number is stamped on each mail and POD. Later in the day the tracking number along with the details are sent to the client. The clients can anytime check the status of their mails online by inserting the tracking number. It provides a quick confirmation to the client. Proof Of Delivery (POD) is a small slip where the address, company name and pick-up date is written. The PODs are stamped by the companies, acknowledging that the mail has been delivered safely. Sign Language sheet shows the basic sign language of alphabet. This is to bring awareness of deaf to the people.





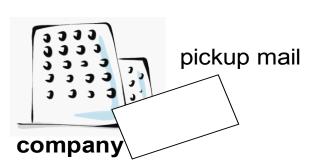
The girls sort the mails for each boy. The systems of pin codes are avoided as there are frequent errors from the sender in writing the correct pin numbers. The sorting is done on the table. After all the mails are sorted, the number of mails for each boy is counted for and recorded.

After the boys are handed over their lot for the day, the mails require further sorting by the boys according to the route which the take starting from the railway station. The delivery boys use Eicher Mumbai Maps to clarify their routes or delivery points, which is kept on the main table. Then the boys leave for delivery.



The boys do the delivery till 6.3opm then return to the company. During the delivery the boys get a sign/stamp from the recipient on the PODs which are brought back to the company. If the mails could not be delivered the reasons are stated (shifted/closed/wrong address) a 'we missed you' form, with details of date and time, is slipped in and the mail is brought back to office. These undeliverable mails are kept aside to be delivered for the next. There are two attempts to deliver the mail, else it is sent back to the sender. The boys have the duty to pick up mails from respective companies at respective timings. They stop their delivery to pick up the mails for the next day. The boys return back to the company with the stamped PODs and the mails for the next day. The PODs are carefully stored in a box incase of clarification from the sender. The girls engage themselves in data entry of details and accounting of each mail. The confirmation is e-mailed to the company addresses on receiving the PODs after delivery.

work cycle











sorting of mail girls area wise

returning POD to company





returning signed POD to mirakle

48 hours process







	C O U DELIVERIN PROOF OF	RAKI RIEF IG POSSIBIL DELIVERY	
NAME			•
ADDRESS	,		
SIGN/STAI	MP		

Existing Proof of Delivery sheet

Division of work

Boys goes for delivery.

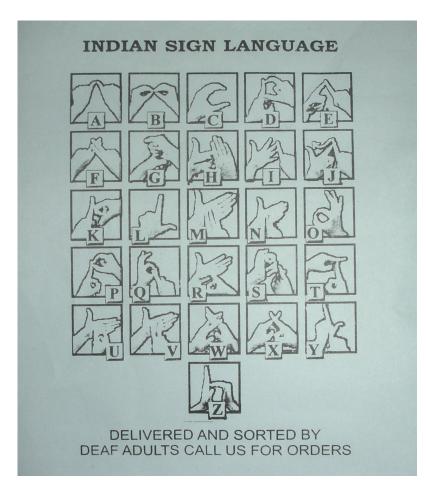
- Boys sort consignments according to their areas.
- See Eicher map for new roads.
- Prefer nearest railway station.
- Deliver till 6:30 pm.
- In between go for pickup's.
- while delivering main thing is to get the
- Receiver's sign/seal/stamp/Ph.no.
- If undelivered, have to state reasons.

POD's are returned back to the girls.

- Girls separate it company wise
- Counted in 2 ways:
- Total no. of POD's delivered company wise.
- Total no. of POD's delivered per boy (Bonus).

POD's return back to the companies a day after the delivery

All the pickup's/deliveries/counting's/companies/bonus are Computerized.



Indian sign language sheet

Girls: do the office work

- Counting, sorting.
- Copying the address to the POD's.
- Sort consignments according boy's name/area.
- Total no. of consignments given to each boy company wise.
- POD's counted, marked, checked.
- Handed out to the administration.

Boys:

- Pickup of consignments from different companies.
- Deliver.
- Return the POD's to respective companies.

Activity analysis of the present system

Gathering the mail:

Pile of Mail on table
Counting the number of mails received from each compan
Communicating with Writer (BOOK1 + BOARD)
Writing workload for the day on board
(Date,company, number)
Pilng up of mail

Filling POD:

Writing addresses on POD
(Name, Address, Date, Sign)
Stamping number code on POD and mail
Difficulty in recognizing handwritings
(Clarification from someone who can understand better)
Placing the bunches of POD and Sign language sheet at an easy reach
Stapling POD and Sign language sheet on mail
Piling up finished mails

Assigning Delivery boys (2 girls)

Picking up pile (repeated action for each pile)
Transferring to respective table
Writing names of boys, according to the zone to deliver,
on each POD (known)
Clarified if wrong address is written
Accounting no. of mails for each boy(BOOK2) – total count
Handling the book around the company when required

Sorting:

Tables cleared for sorting
Mails clubbed together according to delivery boy
Mails arranged in an array (no sequence) overlapping
piles when less space
Check on previous days pending mail in book
Taking out and sorting the pending mails
Accounting for pending mails(BOOK2)

Delivery boys:

Delivery boys assigned their respective piles
Boys sit to sort their mails according to their route
Route decided by the boys
Clarification of route with the help of Eicher
Map kept on main table.
Mails not in their route are returned to the Girls to be reassigned
Sorted mails are arranged together by rubber band Placed in bag

At Office:

Accounting for the day
Previous days POD Sorting company wise
Checking with data in BOOK2
Bundled and placed in Box (Tiffin)
Uploading data on Computer
Wait for boys to return

Boys Delivery:

Known areas

Travel by public transport Train/Bus

Delivery to destinations

Finding unknown destinations from strangers

At Appointed Time delivery is left and run to company for pickup

Entry to office/mail rooms

Asking for the mails

Collecting mails (and Address)

Counting number of mails and bound(rubber band)

Returning PODs

5.30 Delivery stopped Returned to Mirakle

Back to Office:

Emptying the bags one by one (pagewise)

Undelivered mail returned

Piling of Fresh mail

Accounting of undelivered mail

Conveying to Writer

Handling bag(picking up, No. of bags, Emptying bag,

Checking, Folding aside)

Updating mail data online according to number code on POD.

Status of the mail sent to companies through e-mail



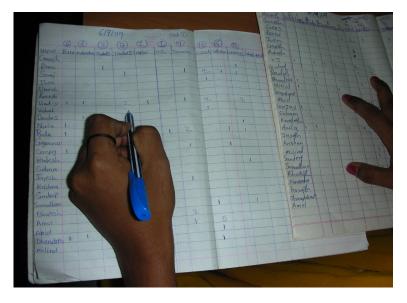


Problem area in the existing system

Pick up:

Requires invoice including.

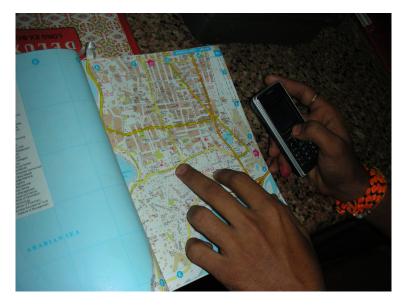
- No. of consignments collected.
- Date/Day.
- Sign.
- Area.
- Company name.



Counting & Sorting:

- Everything noting down in a note book is unmanageable.
- These people have problem in reading running handwriting (cursive writing).
- Writing each POD's is a problem.
- Sorting takes more time because it is done twice once by girls then by boys.
- POD's are unmanageable.
- Clipping of POD's and sign language sheet is a problem.





Arranging: Per dispatch (per area/ per boy):

- No racks are there.
- Consignments get mixed often.
- Nothing is fixed, which consignments to keep where.
- Mistakes found in pin codes.

Delivery:

- Takes time to find out new areas in the map (Pg. no.).
- Reaching to a new area or unknown area is a problem.
- Communication with common people is difficult.
- Cost efficiency.
- Climate.

Personal problems:

- Realization of being deaf.
- Communication between themselves.
- Family problems.
- Detachment from the outer world.
- Education.

Suggested Areas of Improvement & Solutions

- Divide the activities into two primary groups:
 - Collection team
 - Delivery team
- Color Code system
- Improved 'Missed You' sheet, 'POD' sheet & Designed 'Invoice' sheet
- Designed Brochure, Letterhead & Visiting card

Analysing the system

I studied and analysed the whole system again to find out if i can change the existing system up to a level and make the working process easy and fast. I analysed that in the whole system two things are important Pick up's and Delivery. so i started with listing of Existing resources:

- 45 Employes, 20 girls and 25 boys
- 2 people are there for attending phone calls
- 2 work station
 - Churchgate
 - Andheri
- 6 Desktops and 2 Laptops
- Indian Sign Language, Lip reading
- Zoho free tracking system software
- Local Train
- Eicher Map

Working Hours:

Girls: 8:30 am to 5:00 pm Boys: 10:00 am to 7:00 pm

Revised System

Divided into two Parts:

1) PICK UP TEAM

In this team there will be two girls and all boys working.

Girls will do:

- Data entry of in-voice's.
- Data entry of returned POD's.
- Deliver / Undeliver / Pending.

Boys will:

- Pick up.
- Returning signed POD's to Mirakle.
- Returning POD's to respective companies.

In this team one girl will do the data entry of the returned in-voice's from the respective companies and the other girl will update the Delivery status of the returned POD's on site.

Boys will go for pick up in the evening on the assigned time and return back by 7 pm in the office with the consignments and signed POD's. And while going for the pick up's they will return the signed POD's to the respective companies.

2) DELIVERY TEAM:

This team will be consist of rest of the girls and all the boys.

Girls will do:

- Sorting of mails
- POD writing and attaching
 - Fill POD's in computer and take out prints
 - Write the tracking no. on the POD's
- Allotment of mails area wise in the Rack
- Mail the respective tracking no. to the companies
- Sorting of POD's company wise
- Final Check on Data entry each day

Boys will:

• Deliver the Consignments.

In this team girls will sort the consignments like before and then write the POD's in the computer itself and will put the Tracking number also and then will take out the print and staple it on the respective consignments. The advantage in this process is that when they will write the name,

address, tracking number and company name in the POD's it will automatically save in the Data Base which i have made in MS Access 2000. It will reduce the time of entering of name, address, tracking number etc. again in the computer. And because the respective company name will be written on the POD's so it will be easy for the girls to send a email to a company for the tracking number. By the time some girls will sort the signed POD's company wise and handed over to the pick up team girls for status entry on site. One girl will check on the data entry each day.

Each Boys will assigned for each area and company for delivery and pick up of the consignments. And all of them will have one code number. Boys will take their consignments from the rack and go for delivery.

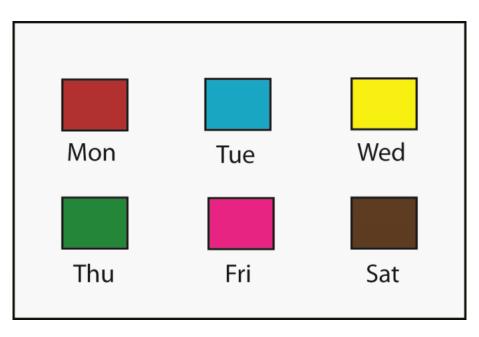


Access Database

Tracking No: 0000008685	
Date: 22-Nov-09	
Boy's Name: Ganesh	
Company's Name: Birla	Area: Andheri (w)
Name:	
Mr. Mahesh Rao	
Address:	
25, balaji arcade 1st floor bandra	
Mumbai	PIN 400078
DELIVERED AND SORTED BY DEAF ADULTS	
For Help Call: 022 22023946 / 9820975600	_
Web: www.miraklecouriers.com	

CurTrkNo	Date 🔻	DeliveryBoy -	Company	Area 🔻	DelName -	DelAddress 🔻	ColorCode1 -
8685	11/22/2009	Ganesh	Birla	Andheri(w)	Mr. Mahesh Ra	25, balaji arcad	1
8686	11/22/2009	Armas	Softpoint	Powai	High Design	303, Shanti Apr	1
				100000000000000000000000000000000000000			

Color Code system



- 6 color code denote 6 days in a week
- All the consignments will have these dots
 (for e.g. Monday red dot, so all the consignments on Monday will have red dots. so that if the mail comes back staff will be knowing which days mail is that and how many times more it will dispatch for delivery)

Redesigned 'Missed You' sheet, 'POD' sheet,' & Designed 'Invoice' sheet

	RAKLE COURIERS RRY WE MISSED YOU
Name of Custon	mer :
Date :	
Time :	
Signature of De	elivery Boy :
Kindly contact u	JS:
	22023946 / 9820975600
SMS : Time : 10 to 6 p	ı.m.
	to Saturday



DELIVERED AND SORTED BY DEAF ADULTS

"Sorry we Missed You"

Customer's Name:	
Date:	Time:
Got a Mail from:	
Sign of Delivery Boy:	
Code no:	

For Help Call: 022 22023946 / 9820975600

Time: 10am to 6pm

Days: Monday to Saturday

Web: www.miraklecouriers.com

First Redesigned "MISSED YOU" sheet

MERAKLE COURIERS DELIVERING POSSIBILITIES
"Sorry we Missed You"
Date: DD MM YYYY Time: HH MM
Customer's Name: Got a Mail from:
Sign of Delivery Boy: Code no:
Delivered & Sorted By Hearing & Speech Disable
Phone: 022 22023946 / 9820975600 Web: www.miraklecouriers.com Time: 10 am to 6 pm Day: Monday to Saturday

Final Redesigned "MISSED YOU" sheet

Changes

Chunk the sheet into three parts

- logo
- area to be filled
- information of the company

Given box for date and time so that no ambiguity will be there.

Two grey strips use for chunking the area into three parts and highlighting information.

Redesign a "Missed you sheet" which includes code no. of the delivery boy for the further help.

	COUR DELIVERING P PROOF OF DE).
NAME	•	
ADDRESS _		
SIGN/STAMF		

Existing 'POD' sheet

	RAKLE COURIERS DELIVERING POSSIBILITIES PROOF OF DELIVERY (POD)
	The of Selivent (195)
Tracking no:	
Date:	Boy's Name:
Company:	Area:
NAME:	
ADDRESS:	
SIGN/STAMP:	Date:
DELIVERED AN	ND SORTED BY DEAF ADULTS
Phone: 022 22	023946 / 9820975600
\\/-	raklecouriers.com

First Redesigned 'POD' sheet

RAKLE C O U R I E R S DELIVERING POSSIBILITIES
PROOF OF DELIVERY (POD)
Tracking no: Date: DDMMYYYY Company:
Area:
Name:
Address: PIN
Sign: Date: DD M M Y Y Y Y
Delivered & Sorted By Hearing & Speech Disable Phone: 022 22023946 / 9820975600 Web: www.miraklecouriers.com
Delivery boy:

Final Redesigned 'POD' sheet

Changes

Redesign the POD sheet includes date, boy's name, company, area and Tracking number.

Chunk the sheet into three parts

- logo
- area to be filled
- information of the company

Given box for tracking number, date and address so that no ambiguity will be there.

Two grey strips use for chunking the area into three parts and highlighting information.

POD can be punched and put it in a file no need to tie it up with rubberband and keep it in the box.

A box is given to put the colour sticker of that day.



....

Date:	
Company:	
Area:	
No.of Consignment:	
Sign:	

DELIVERED AND SORTED BY DEAF ADULTS

Cuatomer Care: 022 22023946 / 9820975600

Web: www.miraklecouriers.com

First designed 'INVOICE' sheet

I have designed a "Invoice" sheet which will help in knowing from which company, and from which area, how many consignments has been collected per day.

MARAKLE COURIERS DELIVERING POSSIBILITIES
Invoice
Date: D D M M Y Y Y Y
Company:
Area:
No. of Parcel:
Sign:
Delivered & Sorted By Hearing & Speech Disable
Phone: 022 22023946 / 9820975600 Web: www.miraklecouriers.com

Changes

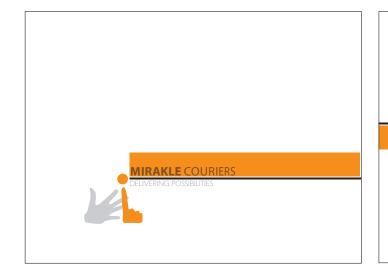
Chunk the sheet into three parts

- logo
- area to be filled
- information of the company

Given box for date so that no ambiguity will be there.

Two grey strips use for chunking the area into three parts and highlighting information.

Brochur Design





What We Do

Mirakle Couriers is a courier company with a difference as we employ only deaf adults.

We provide efficient courier delivery service at competitive costs within Mumbai. Our methodical courier operations and professionally groomed courier boys ensure on-time pick and delivery of your mail at the right address.

Our business model is based on creating a service driven profitable enterprise that uses the services of deaf. To this end, we marry professional excellence with social cause.

We are not a charity but a social business, where the social element is embedded in the commercial operations.

Creating an environment that allows Economically mainstream low-income deaf adults to utilize their full potential deaf adults through a corporate courier and become economically independent. Creating employment and business We believe that through proper training opportunities for the deaf is the ideal way and grooming deaf adults can reach their of bringing about their inclusion in mainstream of society. Economic independence will enhance their socio-economic status Hence, at Mirakle Couriers we lay a great and self-esteem. emphasis on professional grooming, personal hygiene and training of each

Why Deaf India has one of the highest deaf populations in the world. Due to strong stigma in the society there are virtually no job opportunities for this isolated population. Outdated vocations such as candle making have shunned this community; Mirakle Couriers wants to change this grim scenario. It wants to economically empower this community Our tagline 'Delivering Possibilities' stands for the capabilities of our deaf employees; it makes people aware it is possible to

Our Corporate Clients	
Our corporate clients have shown their trust in our business and our cause by availing our services. Our list of clients includes: Mahindra & Mahindra. The Aditya Birla Group. Victory Art Foundation. JSW Group. Indian Hotels Company. Godrej & Boyce. Essel Propack.	Service Areas Our pick-up and delivery services are available all over Mumbai, excluding Thane and Navi Mumbai. Western Suburbs - From Churchgate to Borivali Central Suburbs - From Victoria Terminus to Mulund Harbour Line - From Victoria Terminus to Mankurd



022 22023946 # 9820975600

www.miraklecouriers.com

sales@miraklecouriers.com

I designed this brochure for Mirakle Courier but this was not feasible due to the cost efficiency and so many information was not needed to put in the brochure. So i designed a three fold leaflet which is cost efficient for the company.

Leaflet



dhruv.lakra@miraklecouriers.com

Outer part of the leaflet

Mirakle Couriers wants to economically empower this community and make them more visible in the Indian society.



Inner part of the leaflet

Letterhead



Land line: 022 22023946 Mobile: (+91) 9820975600 www.miraklecouriers.com e-mail: dhruv.lakra@miraklecouriers.com

Visiting card



Dhruv Lakhra

Mobile (+91) 9820975600 www.miraklecouriers.com e-mail: dhruv.lakra@miraklecouriers.com



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MIRAKLE COURIERS

DELIVERING POSSIBILITIES

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Benefits of Suggested Improvements

- Improved time management because of better division of work
- Mails will not get mixed because of color coding system
- No repeated accounting of data because of improve data management system
- Proper use of resources
- Human skill development during free time