



# KEEP YOUR EMPLOYEES CLOSE

Adminstrate your business and employees  
with the best in security technology.



# DëDÄ

DëDA is the new time clock device for your business. It is a light weight device, but don't let that fool you, it is very durable, made for the tough workers.



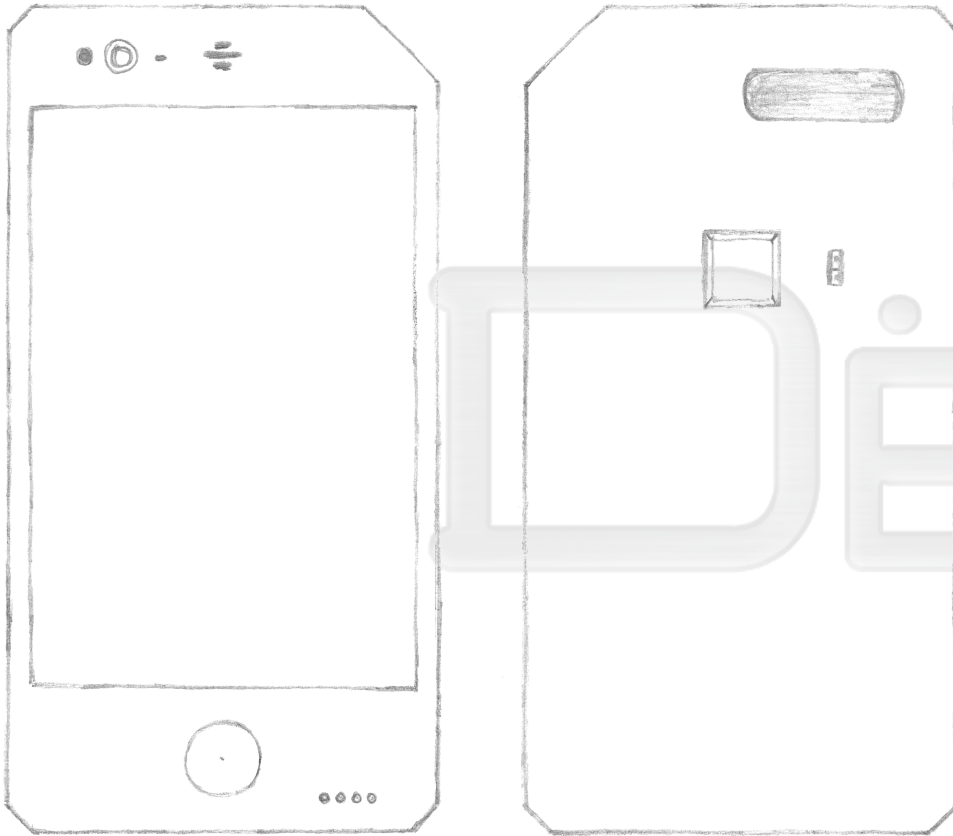


We designed DēDÄ to be high tech and affordable for all working business.

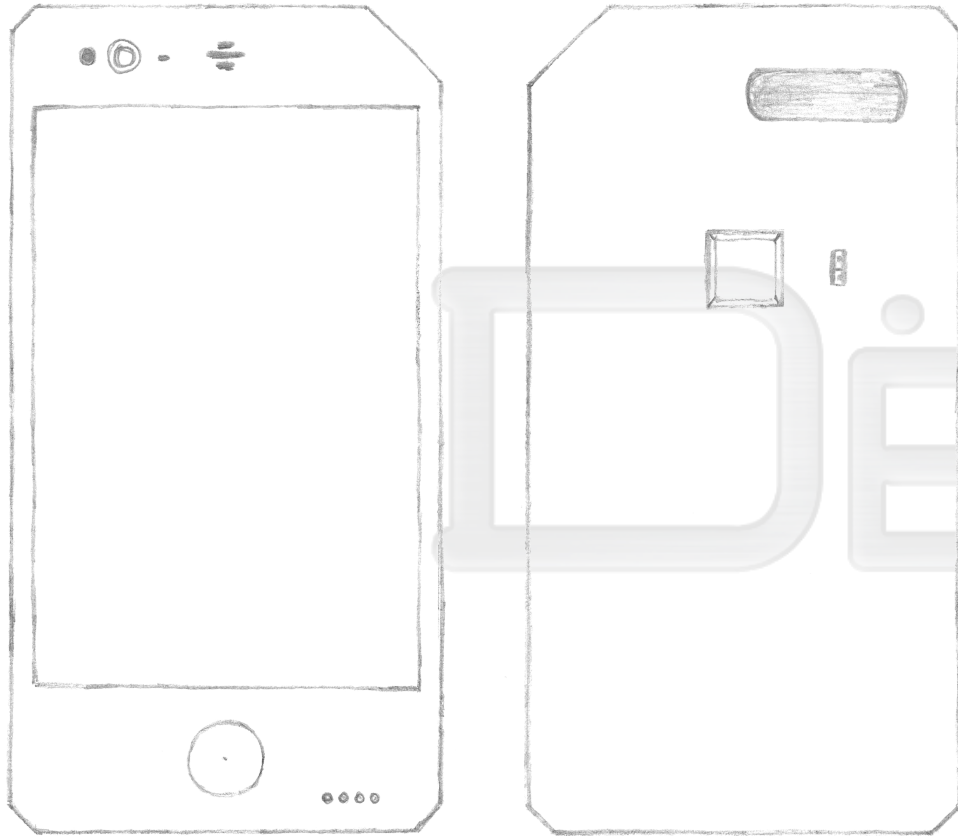
DēDÄ secures your business using biometrics sensor. This device uses an all-in-one optical fingerprint sensor that will make adding fingerprint detection and verification super simple. These modules are typically used in safes - there's a high powered DSP chip that does the image rendering, calculation, feature-finding and searching.



**1. Briefly describe the problem that you were trying to solve?**



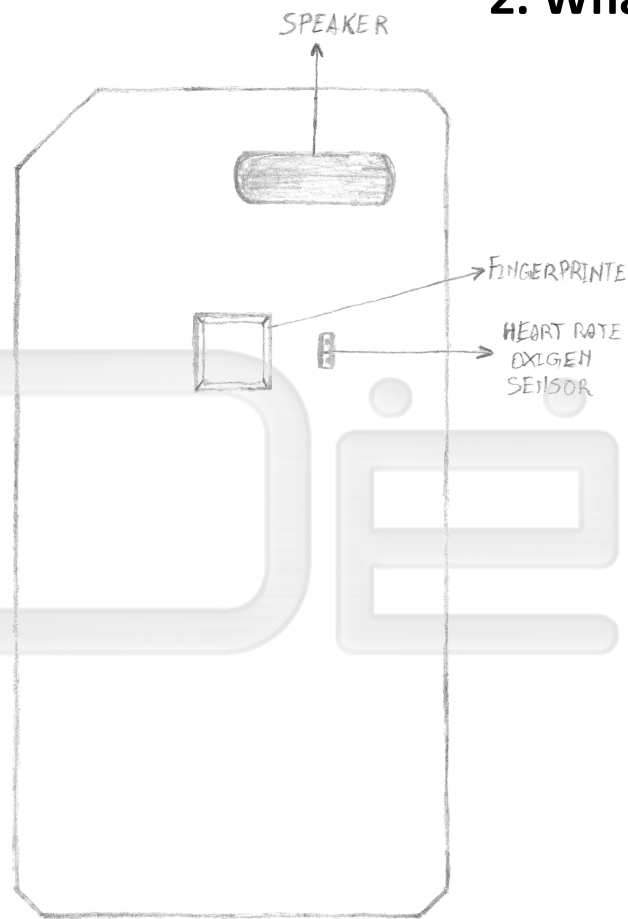
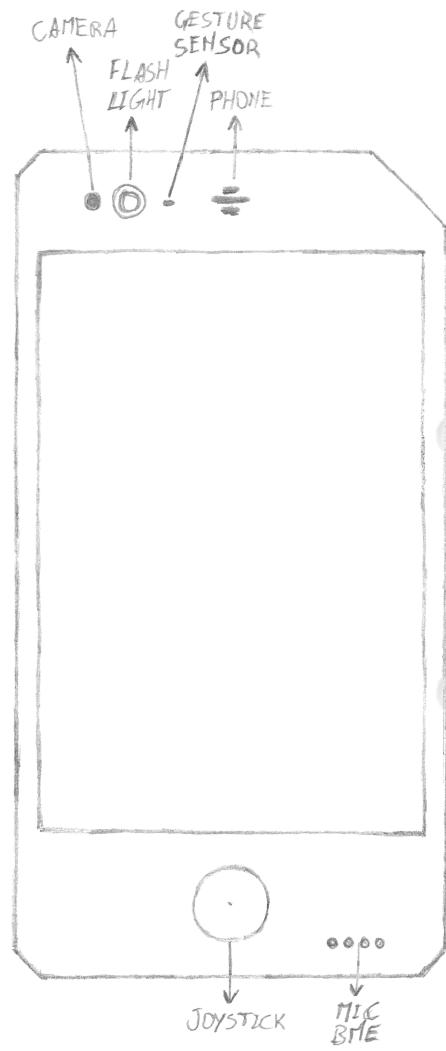




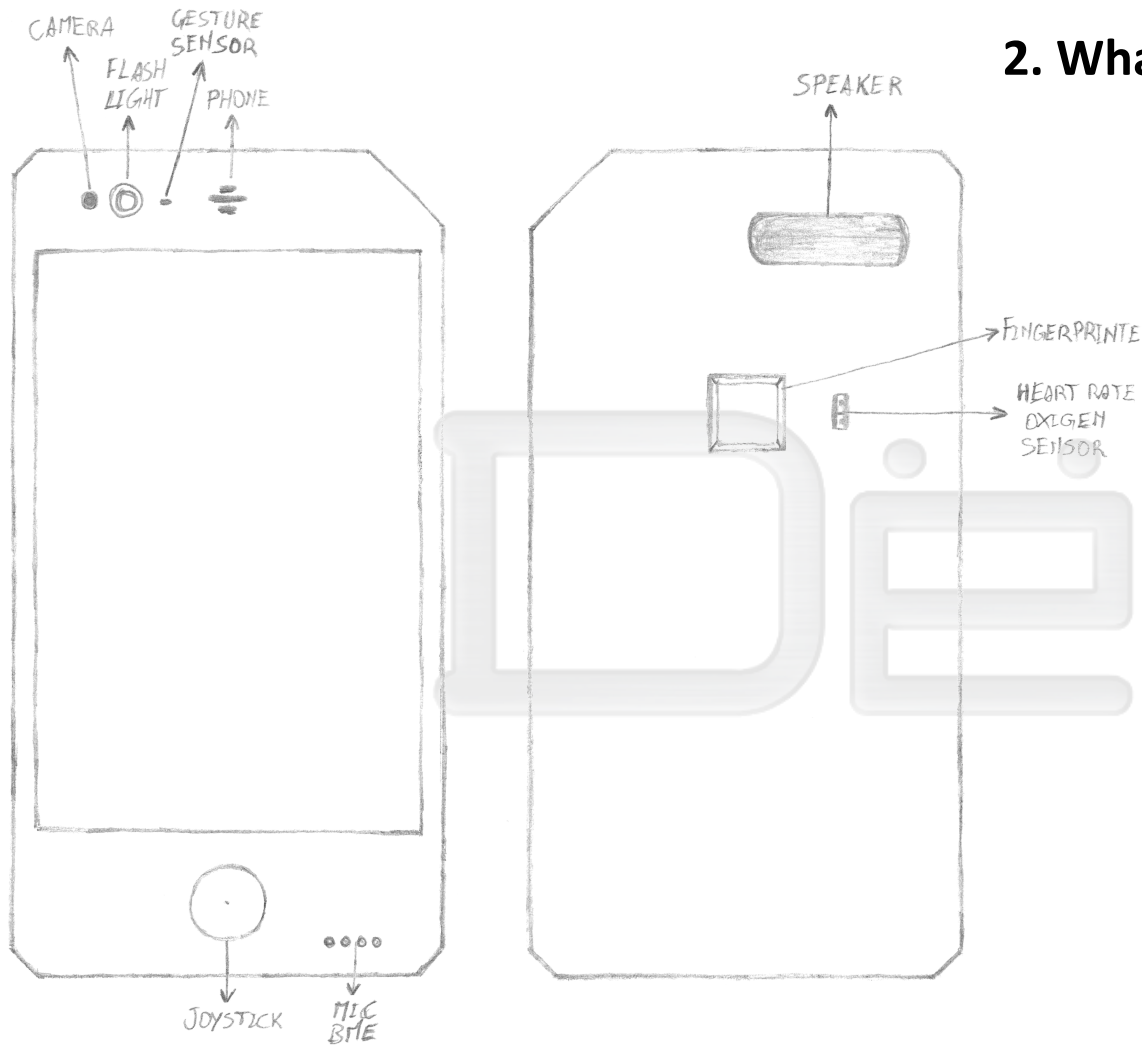
## 1. Briefly describe the problem that you were trying to solve?

The general nature of our problem is costly. We discovered that businesses were having a high cost of their employee but weren't seeing any return on the job. One example is, employees having extended lunch break with no permission, taking care of personal errands during work time, spending excessive time on phone leading to jobs left unfinished, lack of attention to details having to spend more time and money to redo or fix the problems. We discovered that there were even employees that said they were at work but weren't. Another problem was miss calculation of hours paid, sometimes employees would get paid extra or have missing hours from their paycheck.





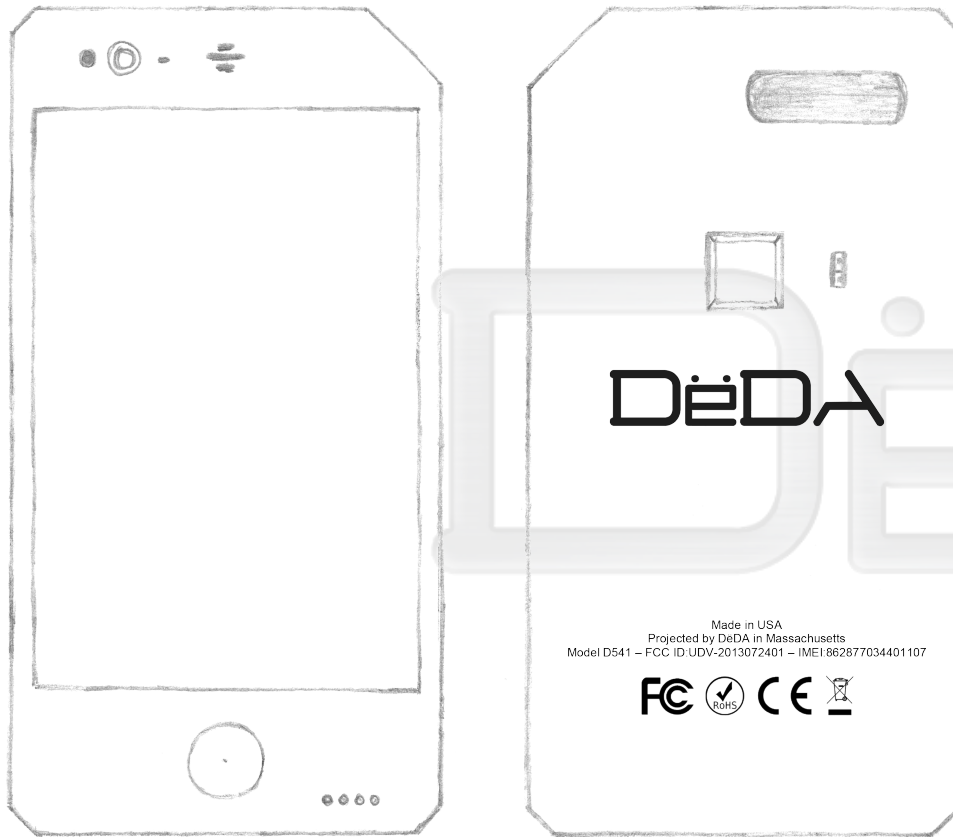
**2. What solutions were used to solve this problem in the past?**



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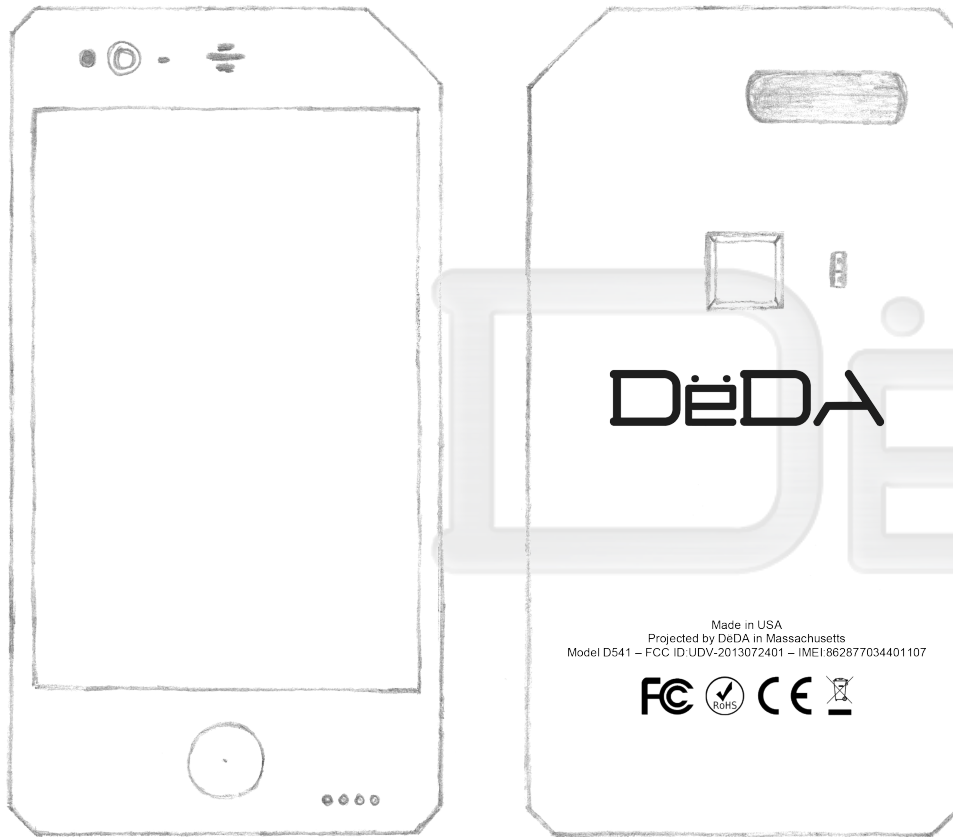
Businesses have been using the “time clock” method to calculate the hours of the employee. This is done by the employee punching a number that has been given to identify him, when starting and finishing a shift. At the end of the week his hours are calculated and a payment is made. Some business use a physical “time clock”, computer software or an “APP”.

### 3. What was it about each of these solutions that failed to solve this problem?



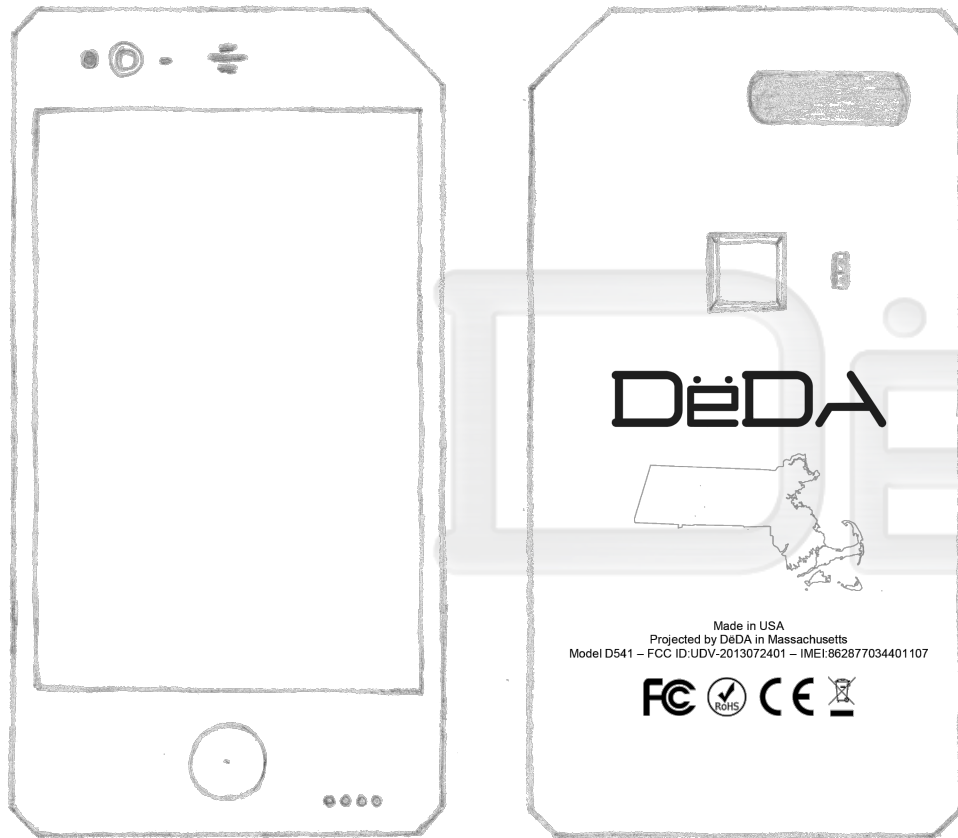


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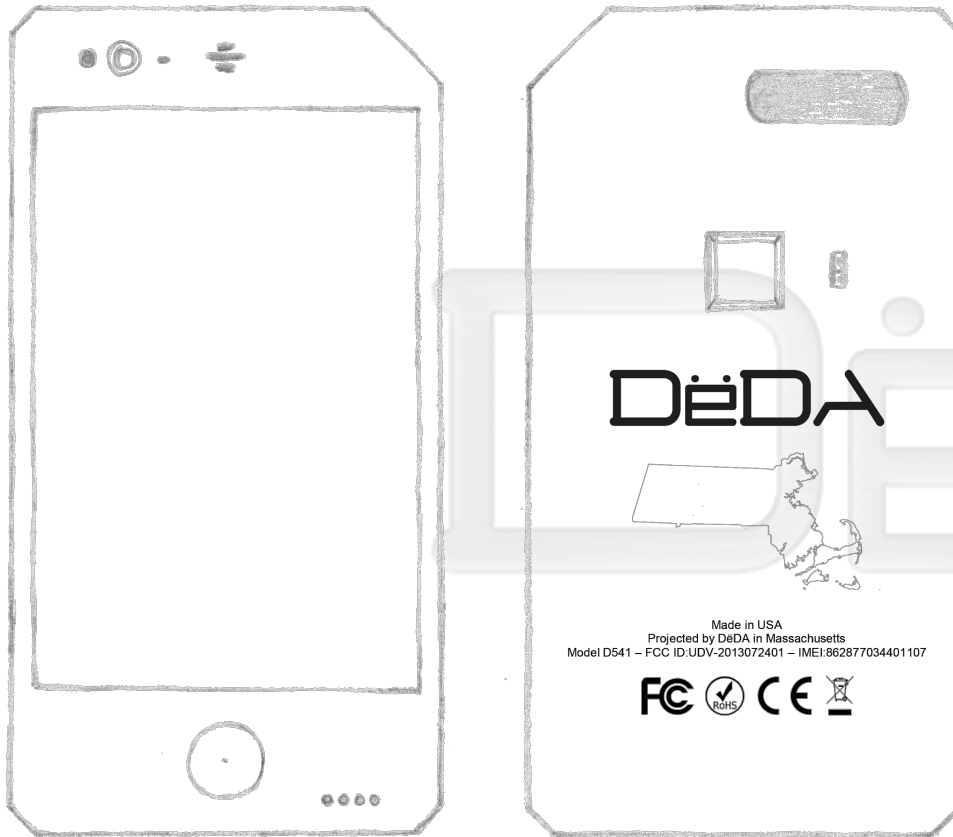
Some of these “time clocks” aren’t portable, one is used for all employees. Some identity issues were discovered using these devices, there is no actual control if the person using the time clock is that person. There is no full control over the employee since he/she can punch in and out when they want. One example, the employee can clock in but leave the work area and come back to clock out or have a co-worker do that task for them. For business that use time clock on phone (APP) employees are left very comfortable not having an employer watching them, resulting in not clocking out for lunch breaks, leaving work before shift ends or even leaving the job undone.

#### 4. Describe your solution.



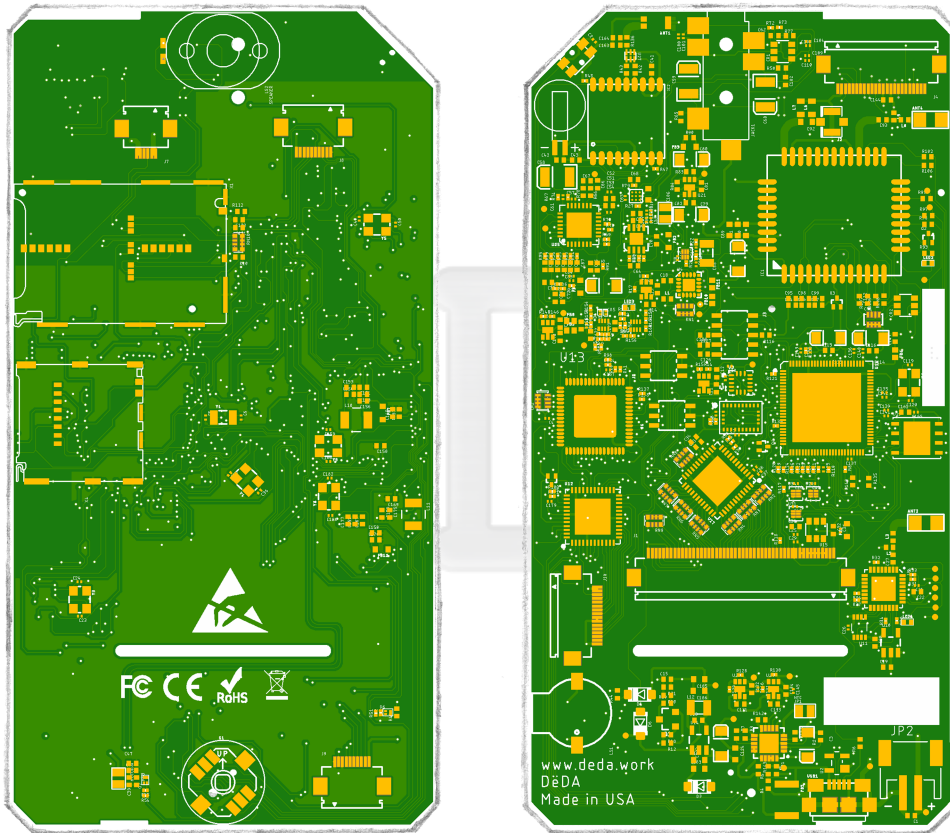


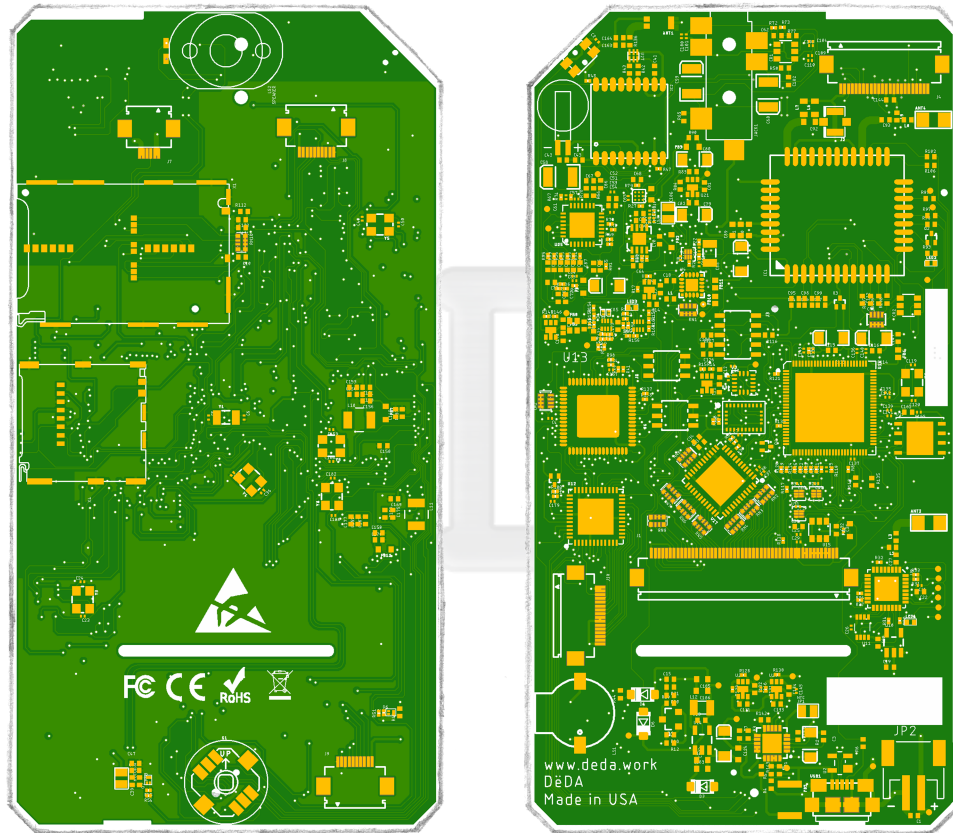
#### 4. Describe your solution.



Our solution is an individual time clock given to each employee to carry on them. This portable time clock carries face identification, IRIS, and fingerprint. The employee is required to follow the security steps when clocking in and out to certify his/her identification. The GPS on this device is used to locate and identify the exact location of where the employee clocked in or out.

**5. Describe the functional and structural differences between your solution and the prior solutions.**



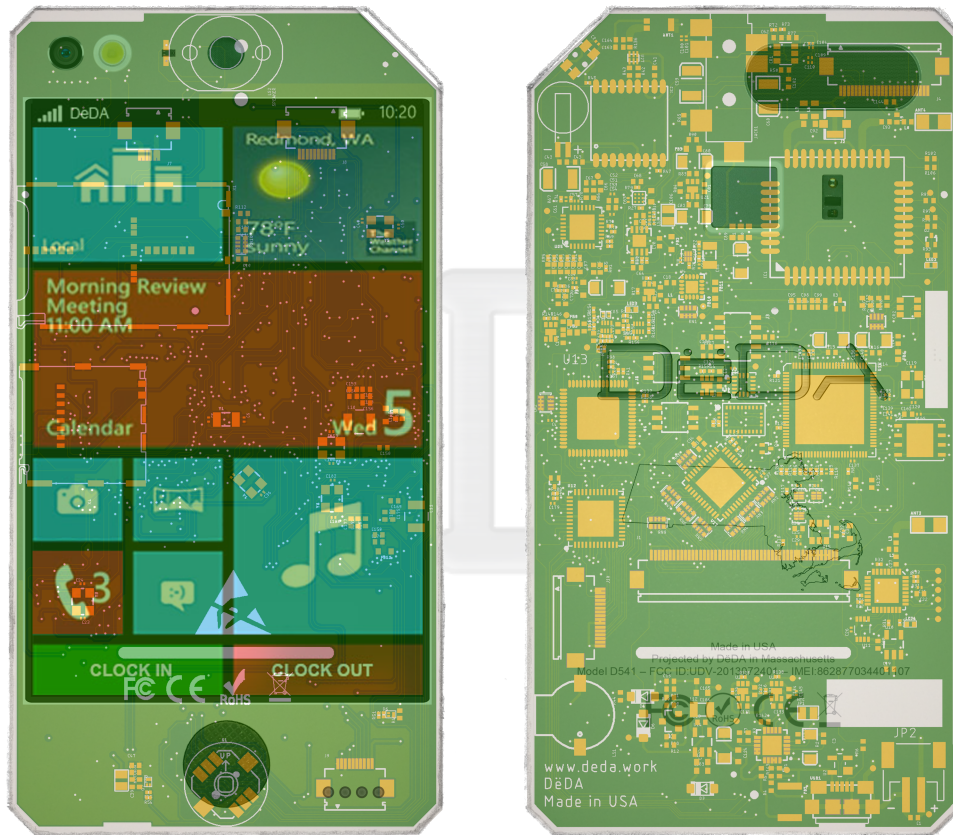


**5. Describe the functional and structural differences between your solution and the prior solutions.**

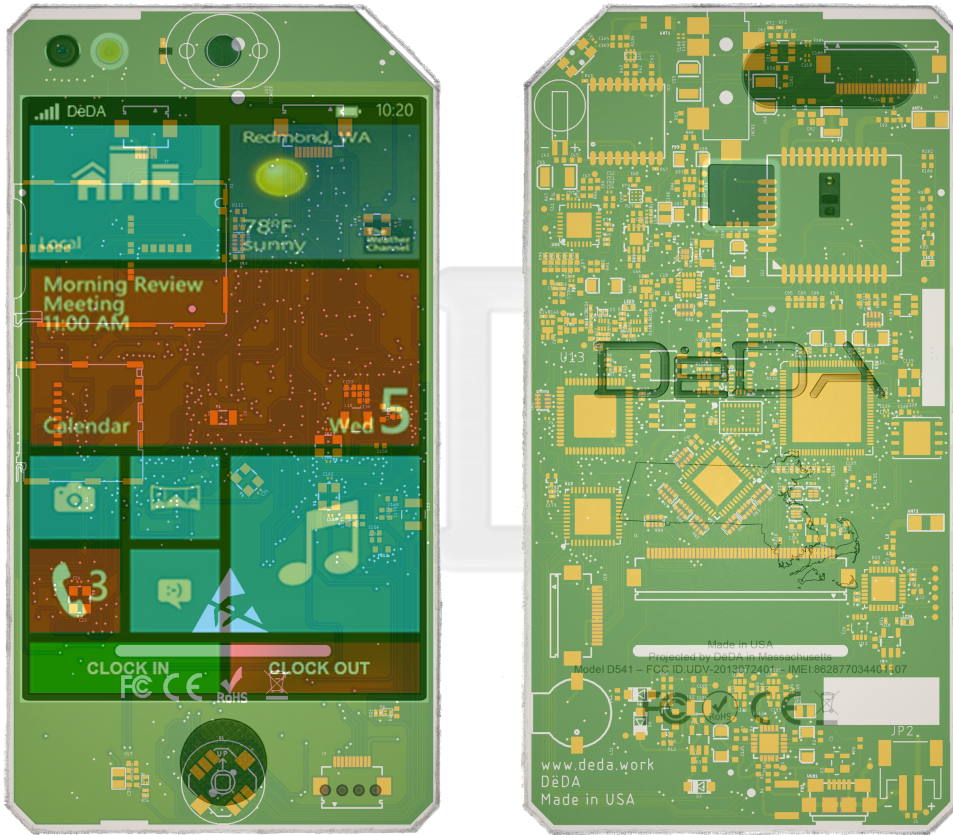
As mentioned before this product has GPS used to give precise location of the employee. This device is made to be located on the employees' waist. With MEMS built inside, the employer will be notified if the employee leaves the work area, or if an accident has accord. The employers will know this by receiving notifications of the employees' movements, if he or she hasn't moved for a certain amount of time.



6. Describe all of the reasons why your solution would NOT be obvious to another inventor working on the same problem at the same time.



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Our research started in a service provider business, where we realized that we had a big problem with the old method of time clock. We were losing a lot in profits, high staff costs, low staff income, and unfinished jobs resulting in the loss of some projects. With these problems, we looked for some solutions offered in the market but none satisfied us, we wanted something more personalized, geared to our needs. With a lot of analysis and research, we created DēDA. DēDA was created for companies/employers to keep close track of their employees, costs and work time and productivity. The employers will feel more comfortable knowing that leaving DēDA with the employees, they can monitor them at a distance because DēDA will send from time to time the productivity of each one.

## 7. Describe all of the results achieved by your solution.





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When we implement DēDA in the company that we used as object of study, we obtain the following results:

- Increase in workers' productivity;
- Decrease in delays by workers;
- Projects delivered on time;
- Decrease in wage/hour calculation errors;
- Save money;
- Workers did not leave work area until job was finished.

## 8. Describe all of the advantages of your solution over the prior solutions.



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The advantage of using DēDA over other prior products is that DēDA is an innovation, thought carefully using technology in favor of the employers. With DēDA, employers will have more control over their spending, productivity of their employees, more security in identifying each employee, using GPS it indicates the location where the worker is performing a job, giving the employer the security that the worker is in the work environment and that he remained there during the working hours. We created DēDA also with the employee in mind, turning the work environment into a more relax one we added, FM/AM radio, MP3, Bluetooth, Wi-Fi, Weather notification, emergency call options, employer direct calls and SMS messages. For their security DēDA also monitors the quality of the air where the employee is working, indicates the level of gases for example carbon monoxide, ethane, isoprene, ethanol and acetone (Alcohol Breath Analyzer). In case of fall or accident DēDA uses man down alert that indicates and notifies the employer. Pulse oximeter and heart-rate sensor is also built in DēDA for easy access in case of an emergency.



# Features



## CAMERA:

Face recognition;

Iris Recognition;

Photo and video capture.\*

\* Privacy, with just a gesture you can turn the camera on/off.

# Features



## FINGERPRINT:

Capacitive touch fingerprint sensor;

508 dpi resolution;

# Features



## GESTURE SENSOR:

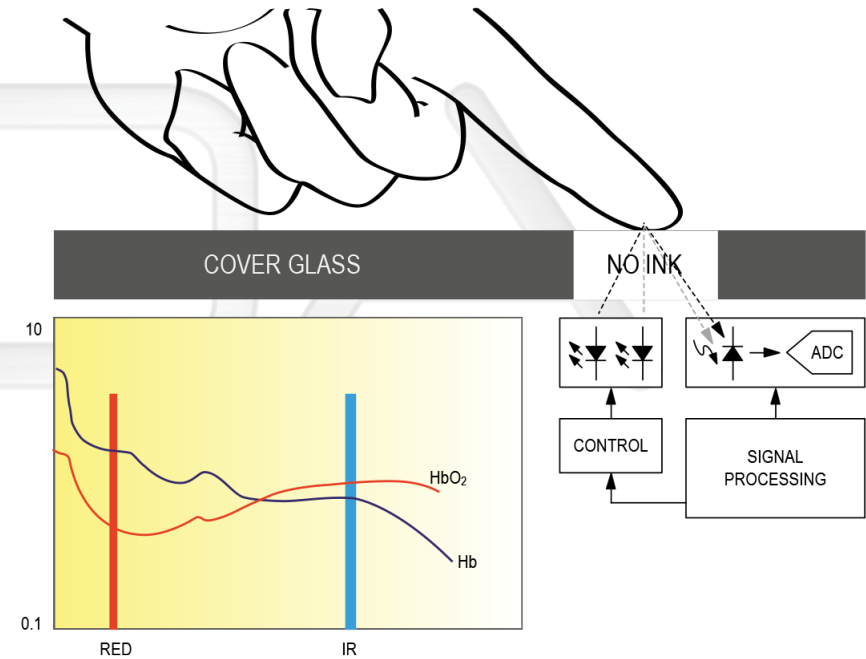
Ambient Light and RGB Color Sensing, Proximity Sensing and Gesture Detection.



# Features



## Pulse oximeter and Heart-Rate Sensor:





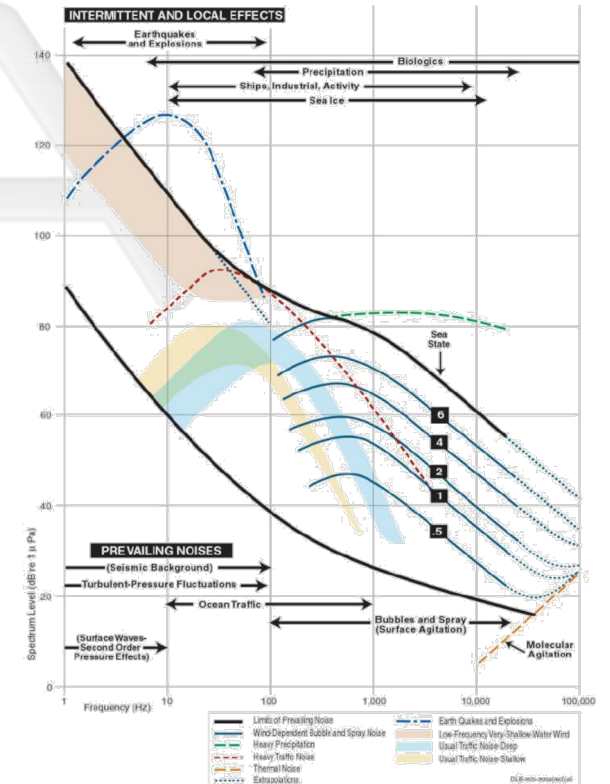
# Features



## MICROPHONE:

Voice recording;

Noise identification level;



# Features



## GAS SENSOR:

Alcohol breath analyzer;

Air quality

IAQ Index	Air Quality
0 – 50	good <sup>10</sup>
51 – 100	average
101 – 150	little bad
151 – 200	bad
201 – 300	worse <sup>2</sup>
301 – 500	very bad

Molar fraction	Compound	Production tolerance	Certified accuracy
5 ppm	Ethane	20 %	5 %
10 ppm	Isoprene /2-methyl-1,3 Butadiene	20 %	5 %
10 ppm	Ethanol	20 %	5 %
50 ppm	Acetone	20 %	5 %
15 ppm	Carbon Monoxide	10 %	2 %

# Features



## SPEAKER:

Speakerphone;

FM/AM Radio;

MP3 Player.

# Features

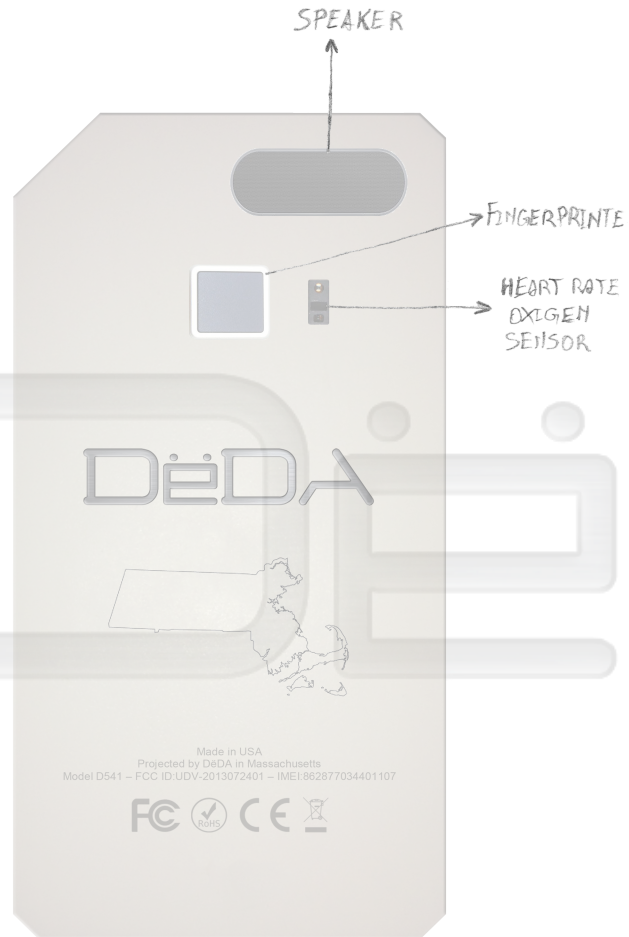


## JOYSTICK:

For easy access to DeDA's functions  
You can use the JOYSTICK ;



# Features



DISPLA:

3.5";

Touch Screen;



# Features



## GEOLOCATION:

GPS;

GLONASS;

BeiDou;

Galileo;

QZSS.

# Features



## MEMS:

(Microelectromechanical systems)

Intelligent absolute orientation sensor;

Nine axis sensor;

Quaternions and spatial rotation;

Euler angles;

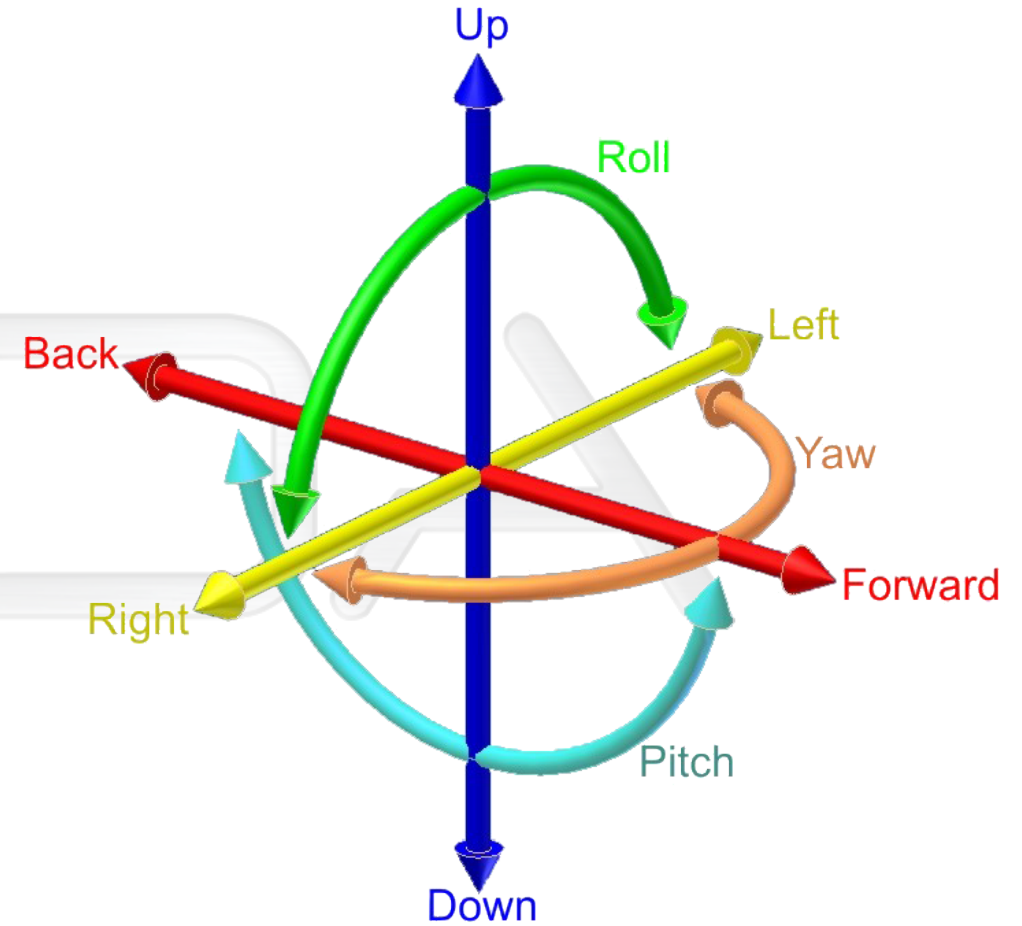
Rotation vector;

Linear acceleration;

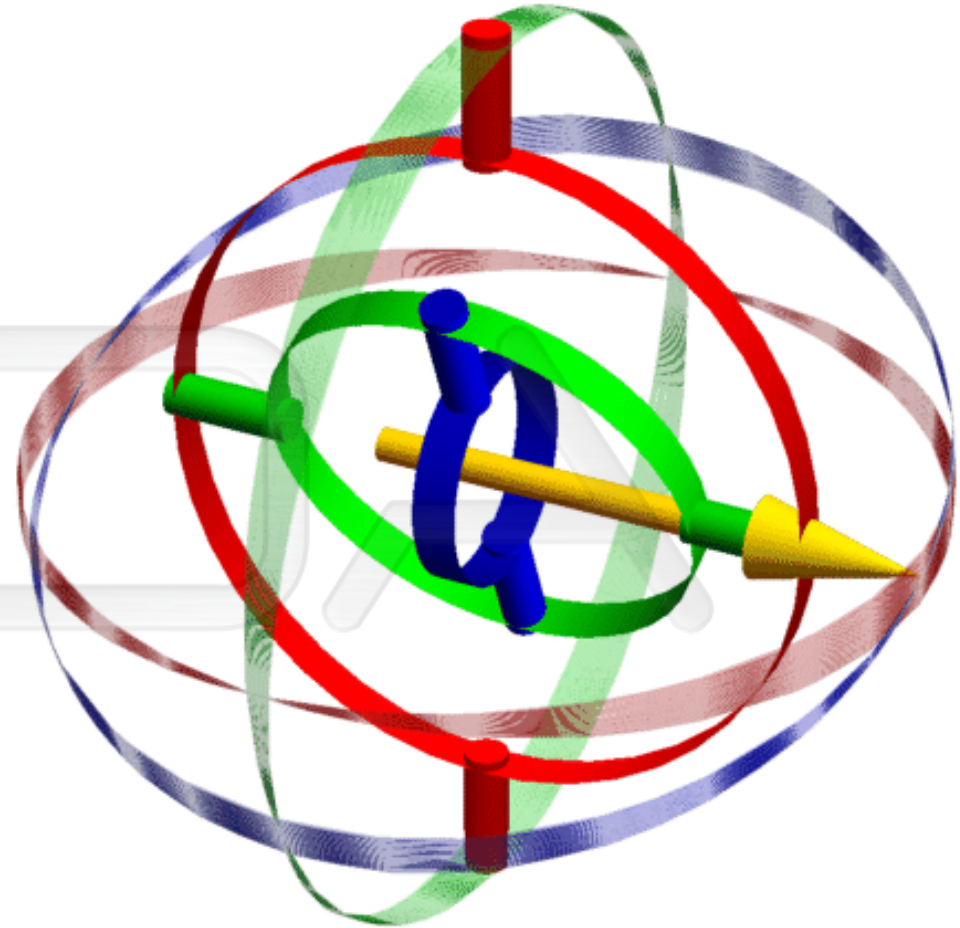
Gravity;

Heading.

# Features



# Features





# Features



## GSM/GPRS:

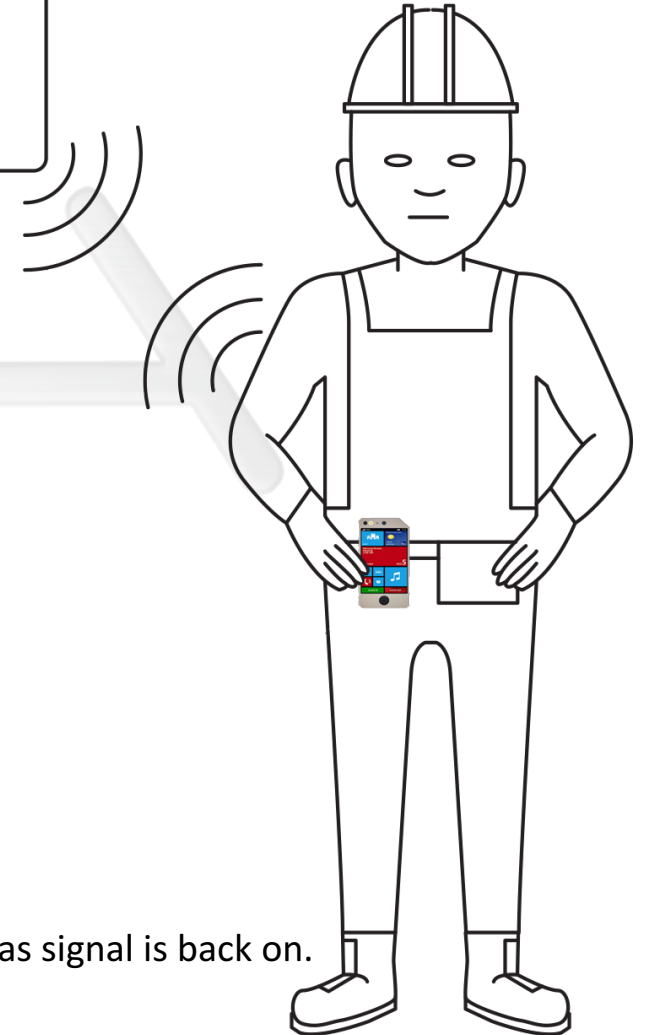
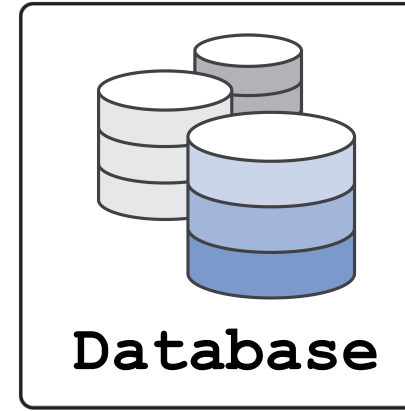
Quad-band: 800/900/1800/1900MHz;

GPRS Class 12;

GSM Class 4;

Embedded Internet Service Protocols;

# Features



In case of no signal, DeDA still registers the data and archives them. Data is sent to our database as soon as signal is back on.

# Features



## **THERMOGRAPHIC CAMERA:**

LWIR sensor, wavelength 8 to 14  $\mu\text{m}$ ;

51-deg HFOV, 63.5-deg diagonal;

Thermal sensitivity <50 mK;

Fast time to image (< 0.5 sec).

# RSC

## Random Security Check



DëDA ensures the employees identity by asking to identify by photo capture, security questions, iris recognition or fingerprint. This will occur randomly from when clocking in until clocking out.



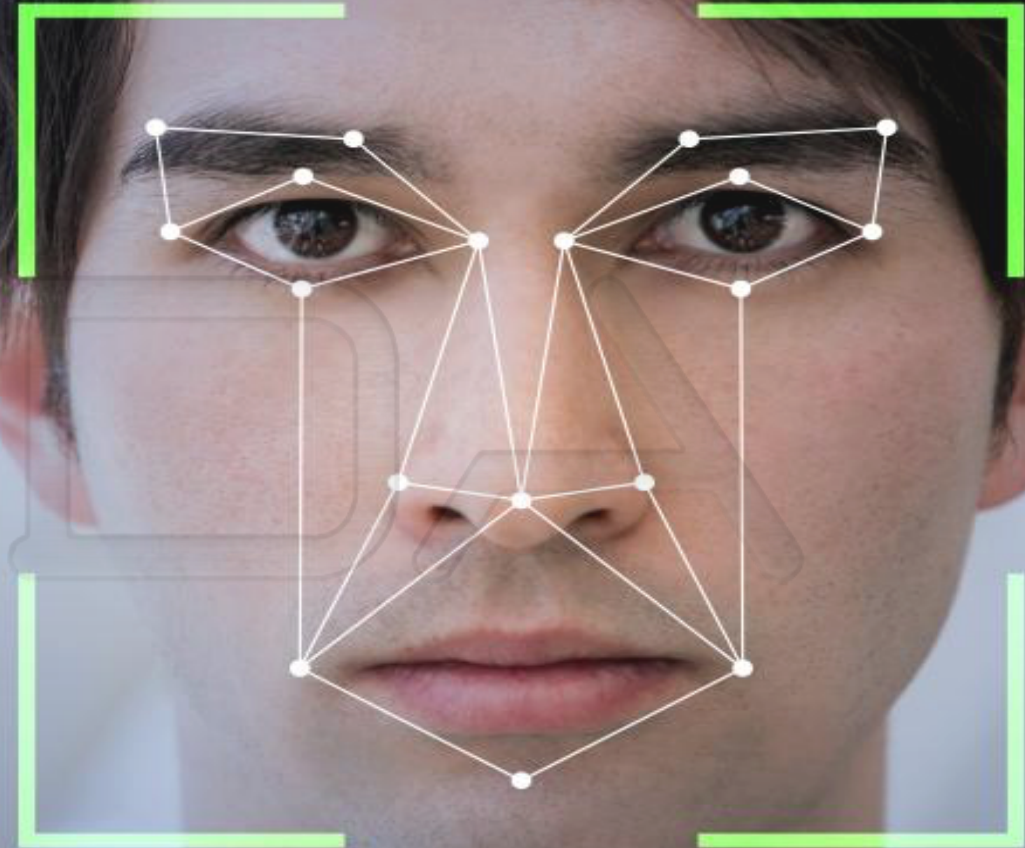
# RSC Fingerprint





# RSC

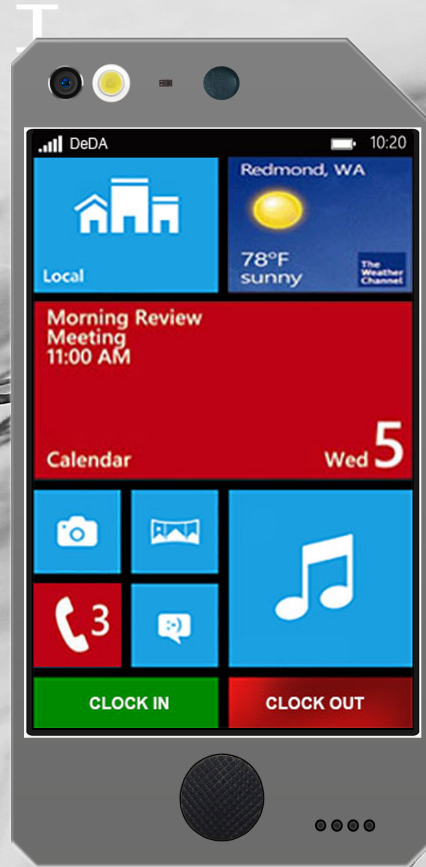
## Face Recognition



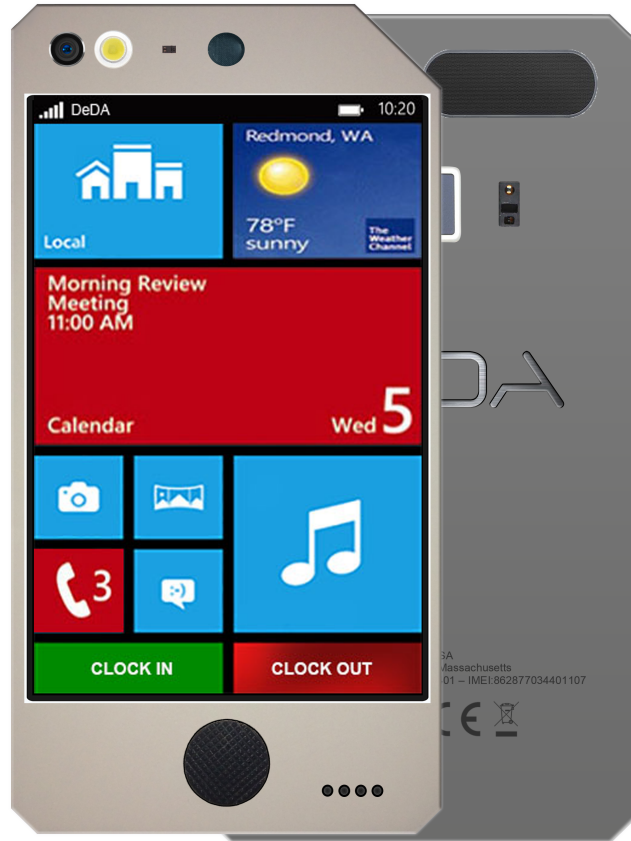


RSC

# Iris Recognition



# Why choose DëDA?



Not only does DëDA help your business grow, we also made it to keep your employees safe.

Working in a safe environment and knowing help is one touch away if needed, gives you and your employee peace of mind.

We included some safety features that can save lives at work, such as;

- Pulse oximeter and heart-rate sensor
- Man down alert;
- Emergency Alert System (EAS);
- Identify a situation where the employee is no longer moving;
- Alcohol breath analyzer;
- Air quality sensor;
- Emergency button.



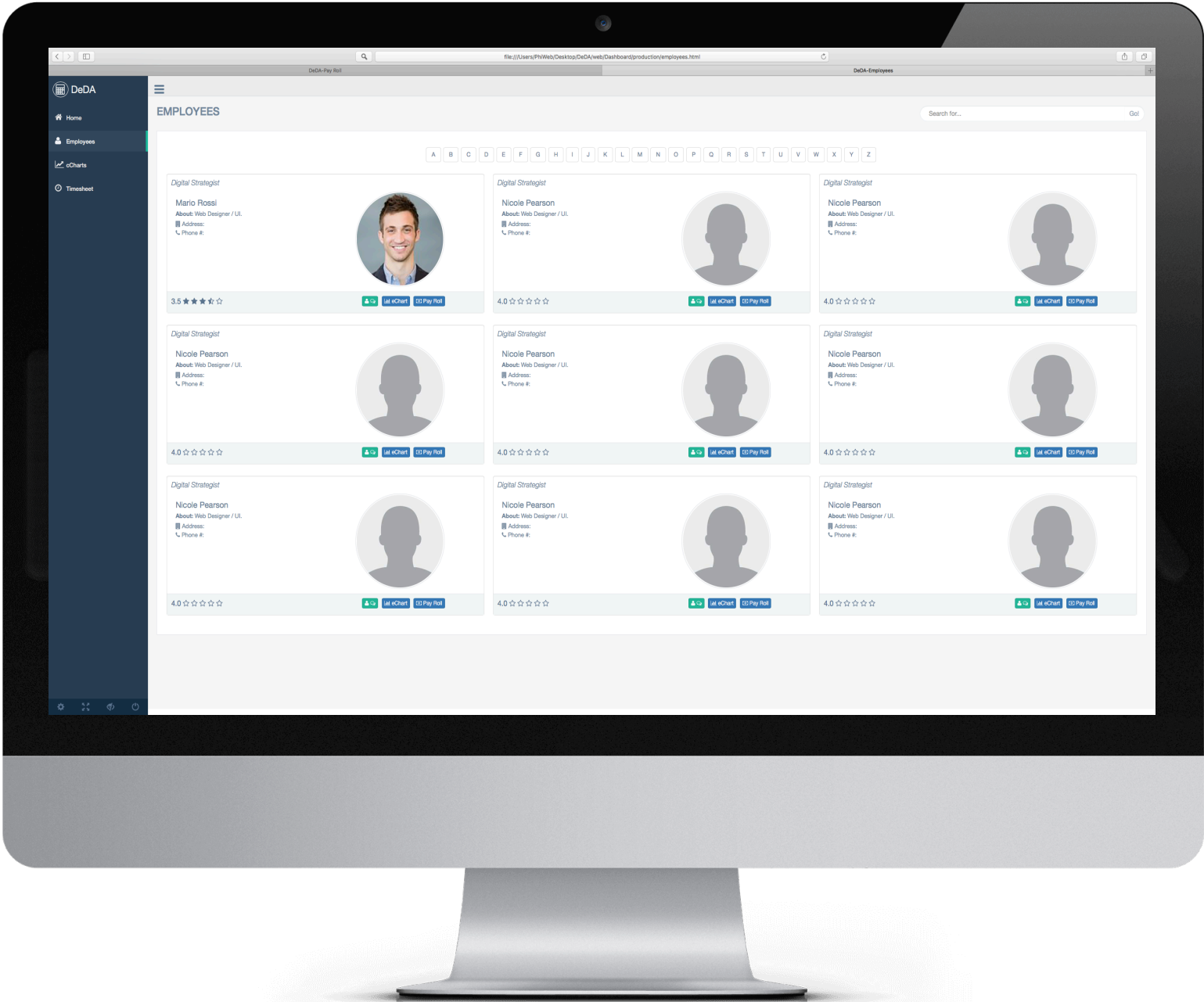
# Dashboard



# Dashboard



# Employees



# Star

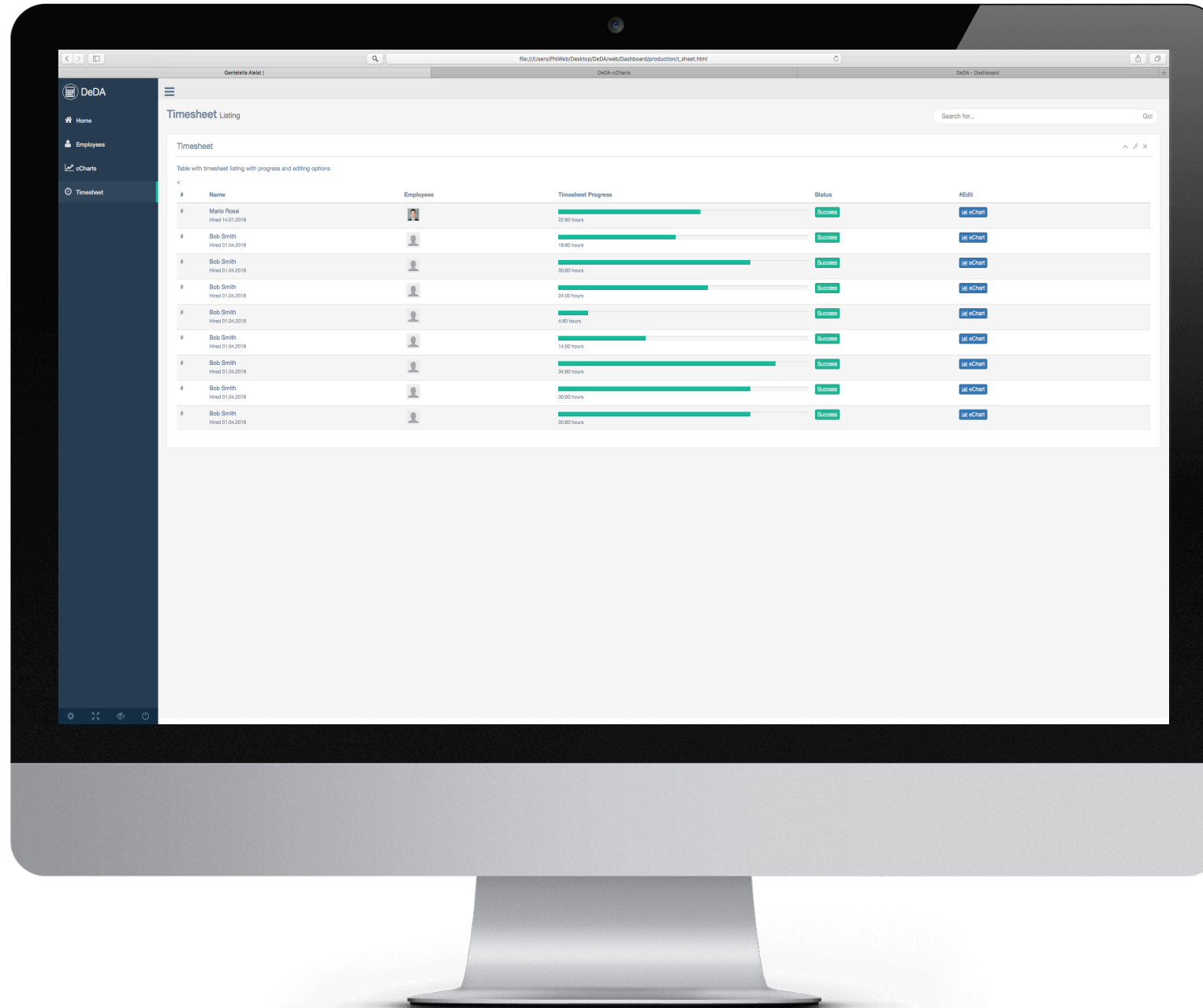




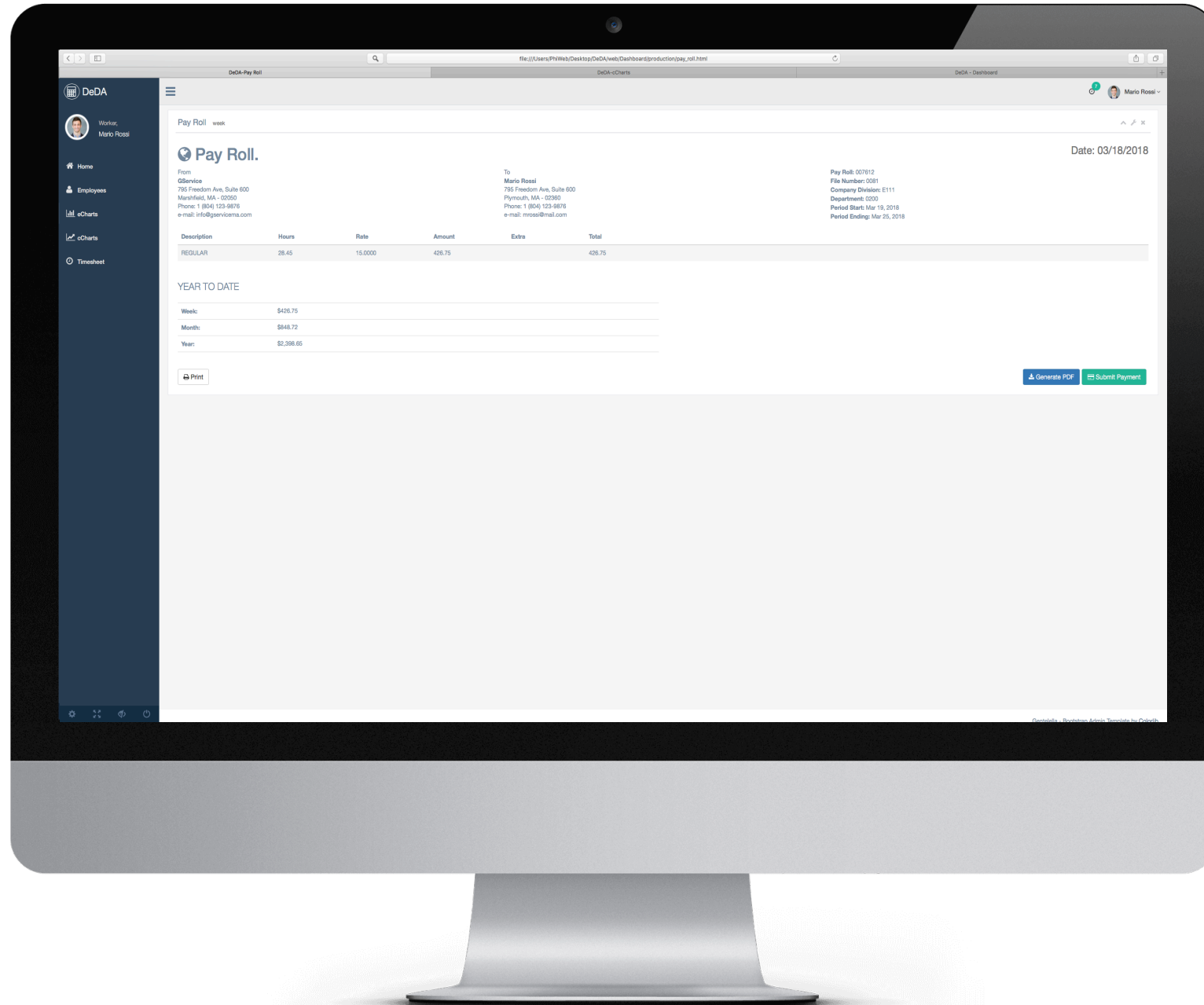
# eChart



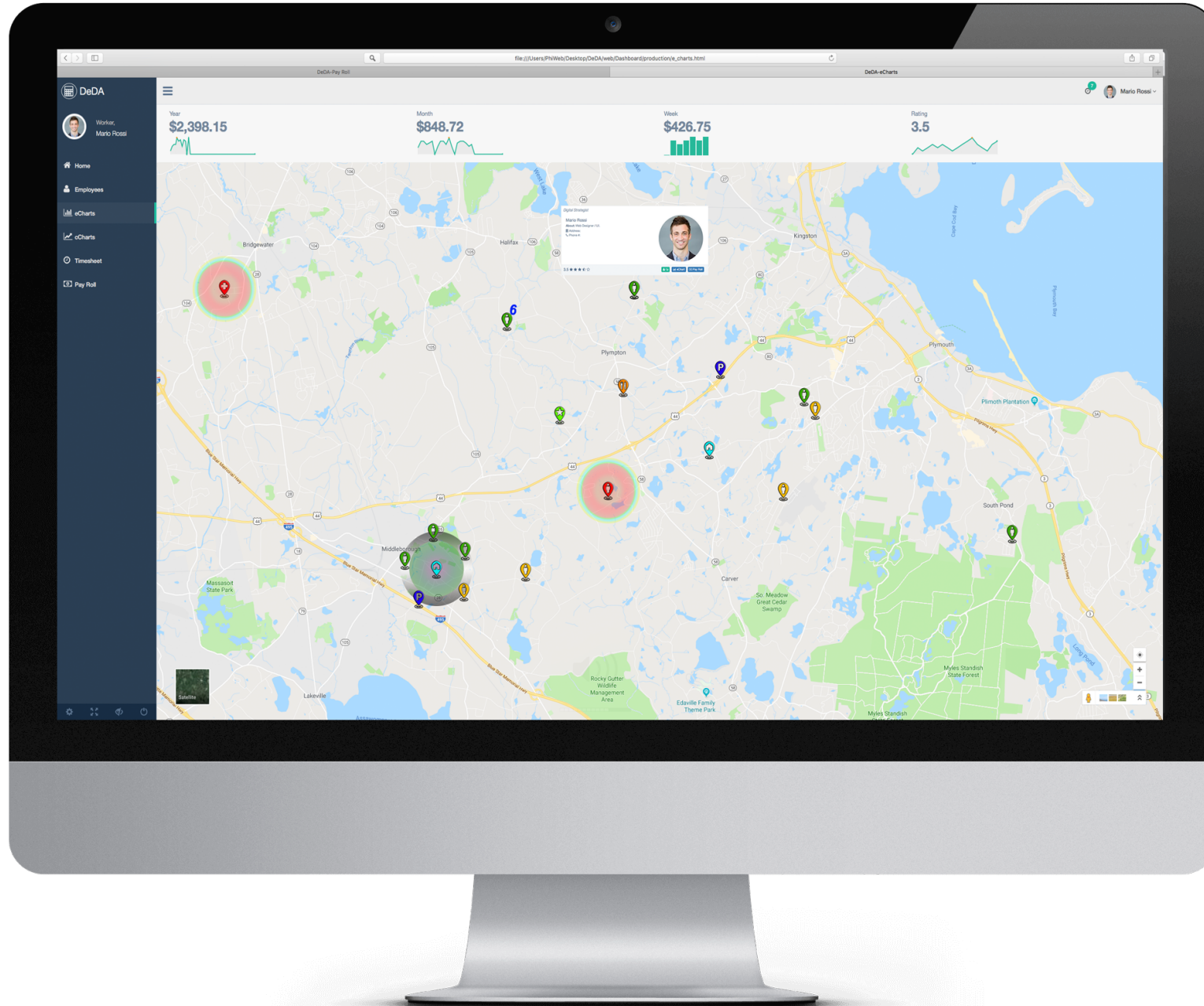
# Timesheet



# Payroll



# Map





# cChart



# App

With DēDA App you're in control!  
Stay connected with your team, keep track of their hours, know their exact location and work performance.

DēDa App helps your business save time and money with the best in technology to serve you and your business with faster results. Getting the job done with efficiency and transparency.



# WORKER

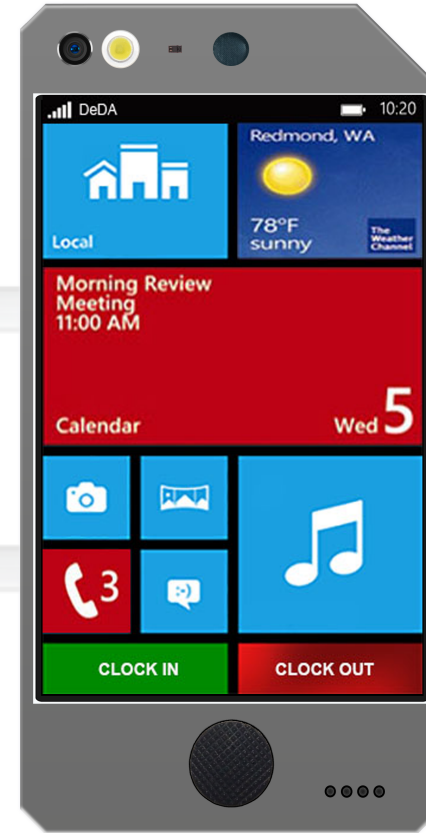
Working conditions can be dangerous. If one of your employees working alone slips, trips or falls—how will you know?

DēDA uses a gyroscope and a three-axis accelerometer to automatically monitor the employee's movements and determine the position and orientation to identify a situation where the employee is no longer moving.

If the worker does not move sufficiently within a configurable period, a Pre-Alarm warning will start.



# DeDA





DeiDA

**Thank you for your time.**