**Project Name: Attendance system using finger print**

**Objective**: In a regular class, attendance is a must thing for both teachers and students and the teachers usually takes takes at least 5-10 mins time to give attendance. So, usually a class wastes that amount of time every single day. And in this era, we know for a fact that time is money. So, if this time can be saved as well as the attendance be also given, then both the students and the teachers will be benefited. That’s where “Attendance system using finger print” project comes.

In this system, both the students and the teachers will touch the fingerprint scanner after entering the class room. The fingerprint scanner will send the data to the software. The software will then match the data with its database and if the fingerprints get matched then auto attendance will be given to them for the following class. Thus, no more extra time will be wasted and both the party will be benefited.

**Elements needed:** r305 fingerprint censor, breadboard, Arduino, wires, led, windows based pc/laptop

**Why choose r305?**

* It is cheap
* Easy to use
* Comes with straight forward Windows software
* Can be enrolled using the software and see an image of the fingerprint on the computer screen

**Enrolling:** There are basically two requirements for using the optical fingerprint sensor. First is to **enroll** fingerprints -which means assigning ID #'s to each print so one can query them later. After being enrolled all prints, one can easily 'search' the sensor, asking it to identify which ID (if any) is currently being used.  
  
One can enroll using the windows software (easiest and neat because it shows the photograph of the print) or with the Arduino sketch (good for when don't have a windows machine handy or for on-the-road enrolling).

**Enrolling New Users with Windows:** The easiest way to enroll a new fingerprint is to use the Windows software. The interface/test software is unfortunately windows-only *but* you only need to use it once to enroll, to get the fingerprint you want stored in the module.  
  
First up, you'll want to connect the sensor to the computer via a USB-serial converter. The easiest way to do this is to connect it directly to the USB/Serial converter in the Arduino.

**Searching with the Software:** Once you have the finger enrolled, it's a good idea to do a quick test to make sure it can be found in the database. Click on the **Search** button on the right hand side.  
  
When prompted, need to press a different/same finger to the sensor.

**Decision**: The whole attendance system can now be done in a shorter and cheaper way through “Attendance system using finger print” and a lot of time can also be saved. Also no students will be able to give a false attendance here since one need to be present there must to have his/her attendance. But as it is a tool so it can be easily picked out or can be damaged easily too. That is one thing one needs to be careful about all the time. Other than that, it may is indeed one of the best systems to get the attendance system be done without much hassle.