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| ANDROID POWERED MINI-PAD FOR VOIP |
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ANDROID POWERED MINI-PAD FOR VOIP

Dr. Omar Nasr

**Abstract:**

Develop smart device as small as cell phones & functional as powerful as computer. Device to host market android applications like VoIP applications. Making internet free calls is complex as it requires a PC to handle the VoIP client or using an expensive mobile set, which puts a high pressure on the cost of making a free call from the internet and having the privilege of this service.

We are going to introduce and build a small portable electronic device which allow you to make a call using public servers such as Skype and Google talk with no need for a computer or mobile set since our device plugs directly to the internet and user friendly with a push and call feature.

Running VoIP applications on an embedded system, you will face some limitation as it’s not an easy program written by assembly language or C, it’s much complicated as it uses some advanced features. So using an operating system that provides these features is reasonable.

Team quickly identified the development boards based on Atmel ARM929 processors as potential end product. We used Android platform above the Linux kernel 2.6.30 to be ported on device. Iterative process of testing operating system images & performance on the real device against emulated image on the PC was carried out with patient.

Further we’ve developed an open phone application based on the SIP signaling protocol and SIP native API which come with newer version of Android platform. The application user interface is quite user friendly.