

# *Successful Entrepreneurship for Microsystems*

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# Team Presentations 2 (last one!)

# It CAN happen to you!

## Hush Technology, The Team Behind the World's First Smart Earplugs



Last November, Hush launched their kickstarter and in just a month, their campaign ended with more than half a million dollars of funding secured and over 4000 backers for their design of the world's first smart earplugs. Hush began as a UC San Diego Moxie Center for Student Entrepreneurship team, and is now well on their way to distributing their product.

The team comprised of Daniel "Ewok" Lee, Daniel Synn and Daniel "Chesong" Lee, three recent UC San Diego graduates, designed Hush to "block out the world, while still letting you hear the things that matter most." Hush's wireless smart earplugs are able to fit comfortably in your ear to block outside sound and play soothing sounds such as raindrops and white noise. Wirelessly connected to your phone, Hush pairs with

users' smartphones and through a mobile application, users can choose which mobile alarms or alerts can sound in their ear buds.

Earlier this May, the team announced a partnership with VisionScape, a South Korea-based manufacturer that specializes in premium consumer wearables. The team believes that this world-class partnership will ensure the highest quality production of Hush. If you're anxious to snag a pair of your own smart earplugs, the team will begin taking pre-orders for Hush on [their website](#) on June 1st. To see more, check out their update on [their kickstarter](#).

# Start-up “Administrative” Checklist

- **Company**
  - **Name, Domain Name (search)**
  - **Address, phone, email**
  - **Web hosting, Domain registration, Website**
- **Business License(s) – city, county,..**
- **Business Structure - Incorporation**
- **Bank Account(s)**
- **Financial**
  - **Record keeping, Accounts, Payables,..**
  - **Funding**
- **Intellectual Property**

# Business Structure

- Sole Proprietorship
- LLC (Limited Liability Company)
- C-Corporation
- S-Corporation
  - “sub-chapter S of the Internal code”
- Partnership

The corporation is considered an artificially created legal entity that exists separate and apart from those individuals who created it and carry on its operations. With as little as one incorporator, a corporation can be formed by simply filing an application for a charter with the respective state. By filing this application, the incorporator will put on record facts, such as:

- the purpose of the intended corporation,
- the names and addresses of the incorporators,
- the amount and types of capital stock the corporation will be authorized to issue, and
- the rights and privileges of the holders of each class of stock.

The term *corporation* comes from the Latin *corpus*, which means *body*.

	C Corp	S Corp	LLC	General Partnership	Sole Proprietor
Owners have limited liability for business debts and obligations	✓	✓	✓		
Created by a state-level registration that usually protects the company name	✓	✓	✓		
Business duration can be perpetual	✓	✓	✓		
May have an unlimited number of owners	✓		✓	✓	

[corporate.com/business\\_structure\\_comparison\\_chart.html](http://corporate.com/business_structure_comparison_chart.html)

	C Corp	S Corp	LLC	General Partnership	Sole Proprietor
May issue shares of stock to attract investors	✓	✓			
Owners can report business profit and loss on their personal tax returns		✓	✓	✓	✓
Owners can split profit and loss with the business for a lower overall tax rate	✓				
Permitted to distribute special allocations, under certain guidelines			✓	✓	
Not required to hold annual meetings or record meeting minutes			✓	✓	✓

[www.incorporate.com/business\\_structure\\_comparison\\_chart.html](http://www.incorporate.com/business_structure_comparison_chart.html)

# Why Incorporate?

## ➤ Advantages

- Owners protected from personal Liability
- Unlimited Life
- Brand Protection
- Prestige and Credibility – “Inc.” or “LLC”
- Transferability of Ownership/Shares
- Ability to raise Investment Capital
- Corporations have a reliable body of legal precedent to guide owners and managers
- Best vehicle for eventual IPO
- Income splitting, Tax benefits and flexibility under some circumstances
- Deductible expenses

Ref: [www.entrepreneur.com/article/77730](http://www.entrepreneur.com/article/77730)

## ➤ Disadvantages

- Require Annual meetings, and Minutes
- Owners and Directors must observe certain formalities
- Expensive to set up
- Require periodic filings with the state, and Annual fees
- Double Taxation (C-Corp)

<http://Smallbusiness.foxbusiness.com/startin-g-a-business>

[www.sba.gov](http://www.sba.gov)



# Protecting your Invention

- **Trade Secrets**
- **Patents**
- **Register Trademark with USPTO** (US Patents & Trademarks office)
- **Copyright ©**


# Utilizing Trade Secrets to protect your Invention

- Valuable information that is maintained confidentially.
  - Information such as a method of production, technical data, and general or specific “know-how” can be protected as a trade secret, so long as such information has:
    - independent economic value, because:
      - it is not generally known and
      - is protected by reasonable secrecy procedures.
- Uniform Trade Secrets Act
- A trade secret exists as long as it is not generally known and the owner of the trade secret employs reasonable efforts to maintain the secrecy of the trade secret.
- It is not possible to maintain a trade secret and obtain a patent on the same subject matter
- A basic trademark costs about \$325 per “class” at filing, along with legal fees.
  - It's worth it to protect your brand.

# Utilizing Patents to protect your Invention

- It's a “Negative Right”...the government endows you with the exclusive right to **exclude** others from making, using or selling your invention
- Covered by Patent Act
- Invention must fall within several classes of subject matter
  - Utility, Design or Plant
  - Protection of Design or Devices
  - Protection of Processes and Manufacturing
- Invention must be:
  - New or Novel
  - Useful
  - Non-obvious to a person having ordinary skills in the art of the invention

<http://www.uspto.gov/patents-getting-started/general-information-concerning-patents>

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- 1) **Utility patents** may be granted to anyone who invents or discovers any new and useful process, machine, article of manufacture, or composition of matter, or any new and useful improvement thereof;
  - 2) **Design patents** may be granted to anyone who invents a new, original, and ornamental design for an article of manufacture; and
  - 3) **Plant patents** may be granted to anyone who invents or discovers and asexually reproduces any distinct and new variety of plant.

Ref: S. Gonzalez

# Steps towards Patenting your Invention

## ➤ Patent Search

## ➤ Draft Patent Application

## ➤ File

- “Patent Pending” status

## ➤ Prosecution

- USPTO does search
- USPTO “Office Action”
- Your Response, including “claim amendment” if required
- Notice of “Allowance” ...on your way to a Patent
- Final Office Action ...option to re-file

## ➤ Issue Fee

- Upon Notice of Allowance
- Patent granted in 1-3 months

Ref: [www.neustel.com/Patent-Inventions](http://www.neustel.com/Patent-Inventions)

# Steps towards Patenting your Invention

## ...some complications

- **First to File** (Europe, now also in US) vs. **First to Invent** (was in US)
- 1 year to file
- General rule – file in US before disclosing
- Low cost “Provisional” Patent filing
  - Establish early filing date
  - File full Patent app within 1 year

Ref: Joe Hadzima, Boston Business Journal, MIT

# Licensing Mobile Apps

- Software code can be copyrighted
- Mobile Apps that change the way a device performs an operation could be patentable
- Challenge – short lifecycle
  - File “Provisional” patent app – good for 1 year
    - Then decide whether to file for a patent
- “methods or processes for producing a useful, concrete, and tangible result”
- “Open Source License” you give the right to someone to use your source code under some Terms and Conditions.
  - You have no control or leverage!

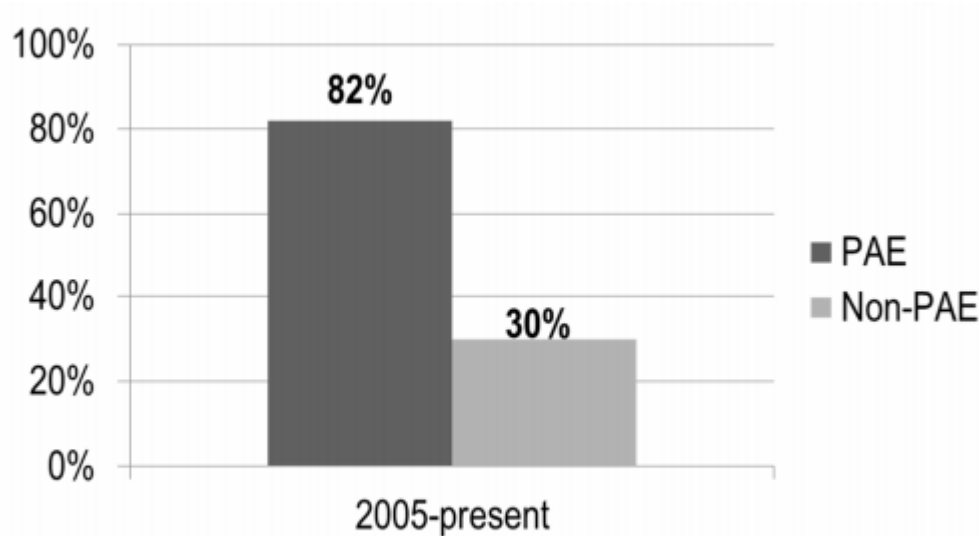
# Licensing your IP

- At some point in the life of your company you may want to “License” your invention to a “Strategic Partner”
  - A lump-sum payment
  - A “Royalty” payment (e.g., ~2-5% or unit selling price)
  - Some issues:
    - The Terms:
      - Exclusive or Non-Exclusive
      - Right to sublicense
    - Warranties
    - Indemnities
    - ...
  - Valuation

# “Patent Trolls”

## ➤ PAE (Patent Assertion Entity)

**Share of Patent Litigation Defendants Sued on the Basis of a Software Patent**



*Class-based definition of “software” patent: Graham & Vishnubhakat, Journal of Ec. Perspectives. 27:1 (2013) which notes that this definition may contain false positives and negatives. Based on an analysis by Gazelletech of data provided by RPX Corp. © 2012-current suit #s: 86%/35% PAE/non-PAE, respectively.*

[http://www.uspto.gov/sites/default/files/patents/init\\_events/software\\_ak\\_cc\\_sw.pdf](http://www.uspto.gov/sites/default/files/patents/init_events/software_ak_cc_sw.pdf)



# HW 7 – Legal and Administrative

*...Due Thursday, May 28<sup>th</sup>*

*...1 page of 'bullet' points*

- Create a Legal and Administrative Summary for your Project
  - Will your company be an LLC, C Corp or an S Corp? What is the rationale?
  - What is unique about your project, and does it need to be trademarked or Patented? Why?

# TEAM Formation

- You
- Team of Founders ...*remember Financial implications*
- Hiring additional resources:
  - Start small
  - Use outsourcing where possible
  - Fill “gaps” in expertise and “disciplines”
- Look for “team-players”
  - flexible individuals
  - “can-do” attitude
  - Hard workers
  - Share your personal and company vision/passion
  - ...
- Avoid “crony-ism”