

Adrian Pelkus presents:

**“17 Mistakes Inventors Make”**  
***And how to avoid them!***

**South Carolina Inventors Forum**



[www.southcarolinainventorsforum.org](http://www.southcarolinainventorsforum.org)

# *To Harness Creativity is to turn your idea into profit*

## *Approach, then Plan then Execute - - -> APE*

**An epiphany is a sudden and striking realization.**

Innovation is a process of changing, improving and transforming

*Ok, so you have an idea...*

Did you capture the idea?

Is the idea worth developing?

What do you want to achieve?

How will you protect the idea?

How will you convey or show your idea?

To who, when and why?

# Approach

***When, how and who to  
start with?***

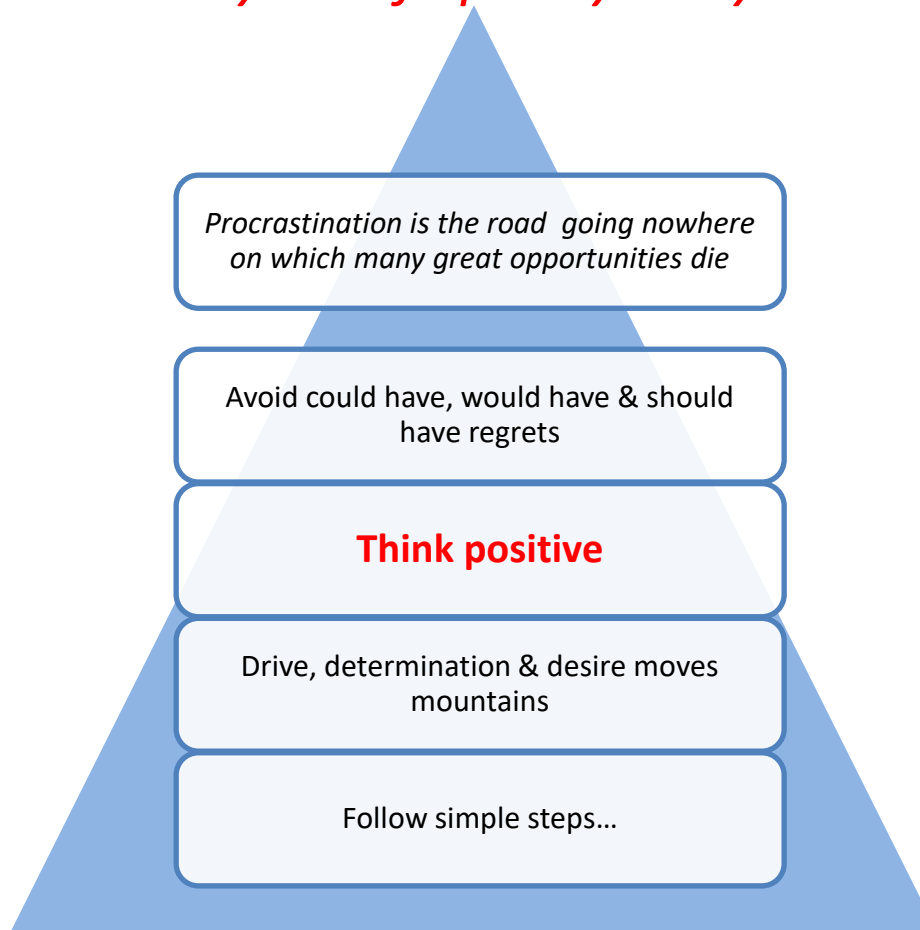
“12k to 50k” thoughts a day

[The National Science Foundation](#) (NSF)

# Mistake #1a

## Not acting on the Idea

*Don't let your life pass you by!*



# Mistake #1b

## Not Capturing the Idea

*It could well be worth the minute!!*



*Many great ideas are lost in fleeting moments...*

***CAPTURE YOUR IDEAS!***

Sticky notes – always on desk

Email yourself – leave message

White board – easy markers

Tape recorder – for “on the road” ideas

Notebooks – pocket diary

<i>Many great ideas are lost in fleeting moments...</i>
<b><i>CAPTURE YOUR IDEAS!</i></b>
Sticky notes – always on desk
Email yourself – leave message
White board – easy markers
Tape recorder – for “on the road” ideas
Notebooks – pocket diary

# Mistake #2

## No Early Evaluation of Idea

*Think objectively & do market research / don't fall "blindly in love" with your own idea.  
Be sure there is a market before starting!!!*

### Factors and Weights

	5	4	3	2	1
Estimated Profitability	Extraordinary	Fantastic	Great	Good	Small Margin
Technical Complexity	Very Simple	Everything is Available	Custom Fab Needed	Custom Design Needed	R&D Required
Industry \$/Year Size	50 Billion+	10 Billion+	1 Billion+	100 Million+	10 Million+
Number of Competitors	<4	>4	>10	>50	>100
Number of Related Patents	<4	>4	>10	>50	>100
IP Uniqueness	Extraordinary	Fantastic	Great	Good	Small Margin
Regulatory Agencies	None	UL/CSA	Off Shore	FDA	>3
Regulatory Acceptance Likelihood	Extraordinary	Fantastic	Great	Good	Small Margin
Development Cost	<\$5K	>\$5K	>\$10K	>50K	>100K
Estimated Unit Sales 1st Year	\$1M+	\$100K+	\$10K+	\$1K+	None

## Mistake #3

### No Reality check

*Give yourself, your life and your idea a SWOT analysis first!!!*

What do you want to do with your idea LICENSE or  
build a company?

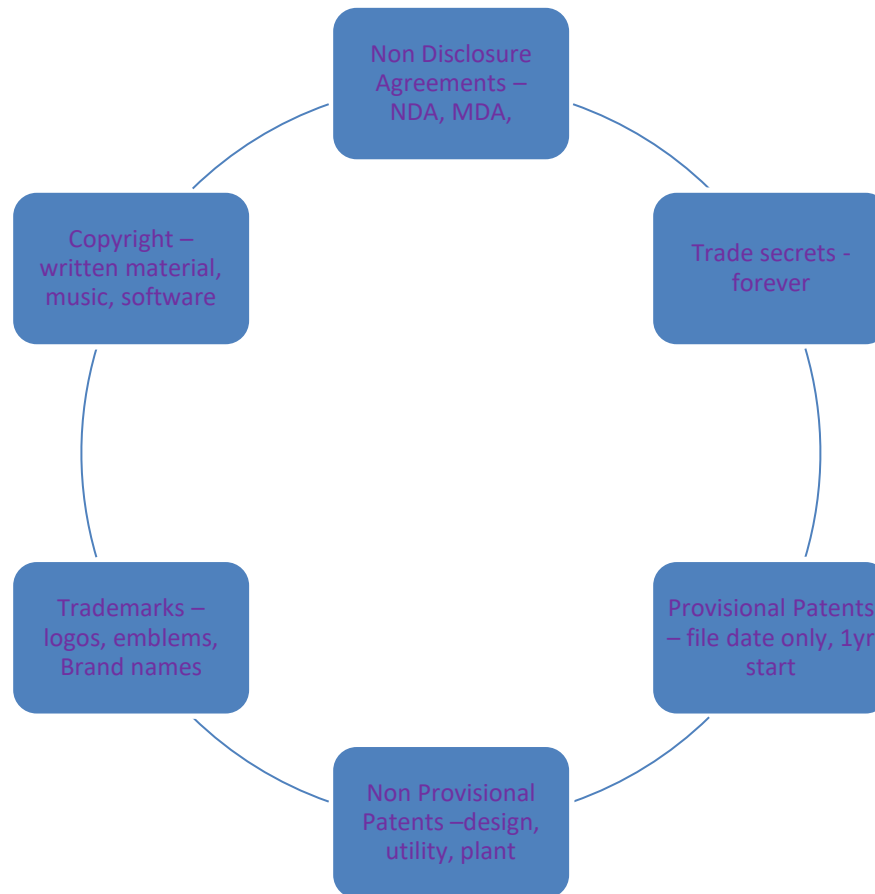
- What can you do
- What cant you do
- What resources do you have
- What do you need
- Who do you know
- Who do you need to know



# Mistake #4

## Not Protecting the Idea

*Don't go around "spilling the beans" because "Loose lips sink ships"*



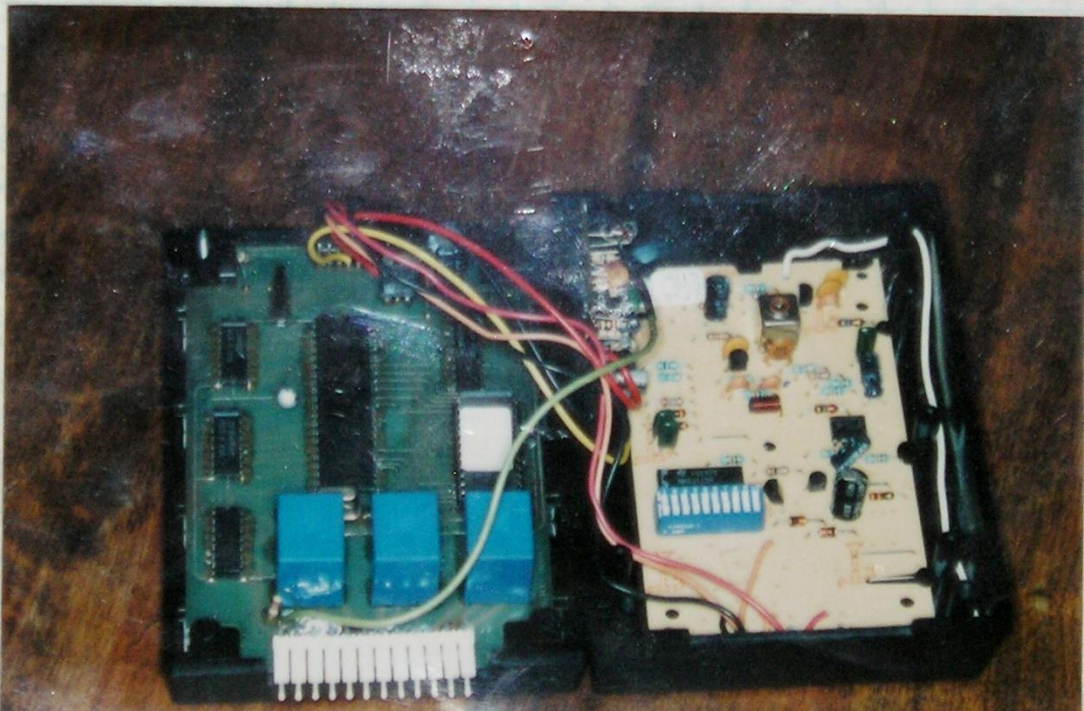


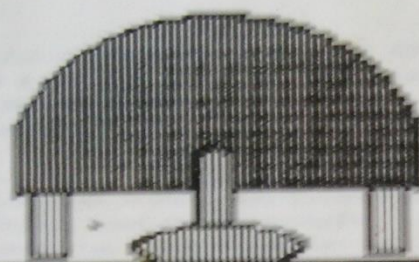
## MOBILE ELECTRONICS

*Alarms, Stereo Systems, Cellular Telephones*

Edison Ramirez

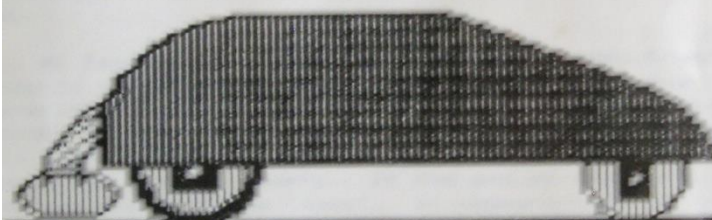
320 Lincoln Blvd., Venice, CA 90291 (213) 392-1999





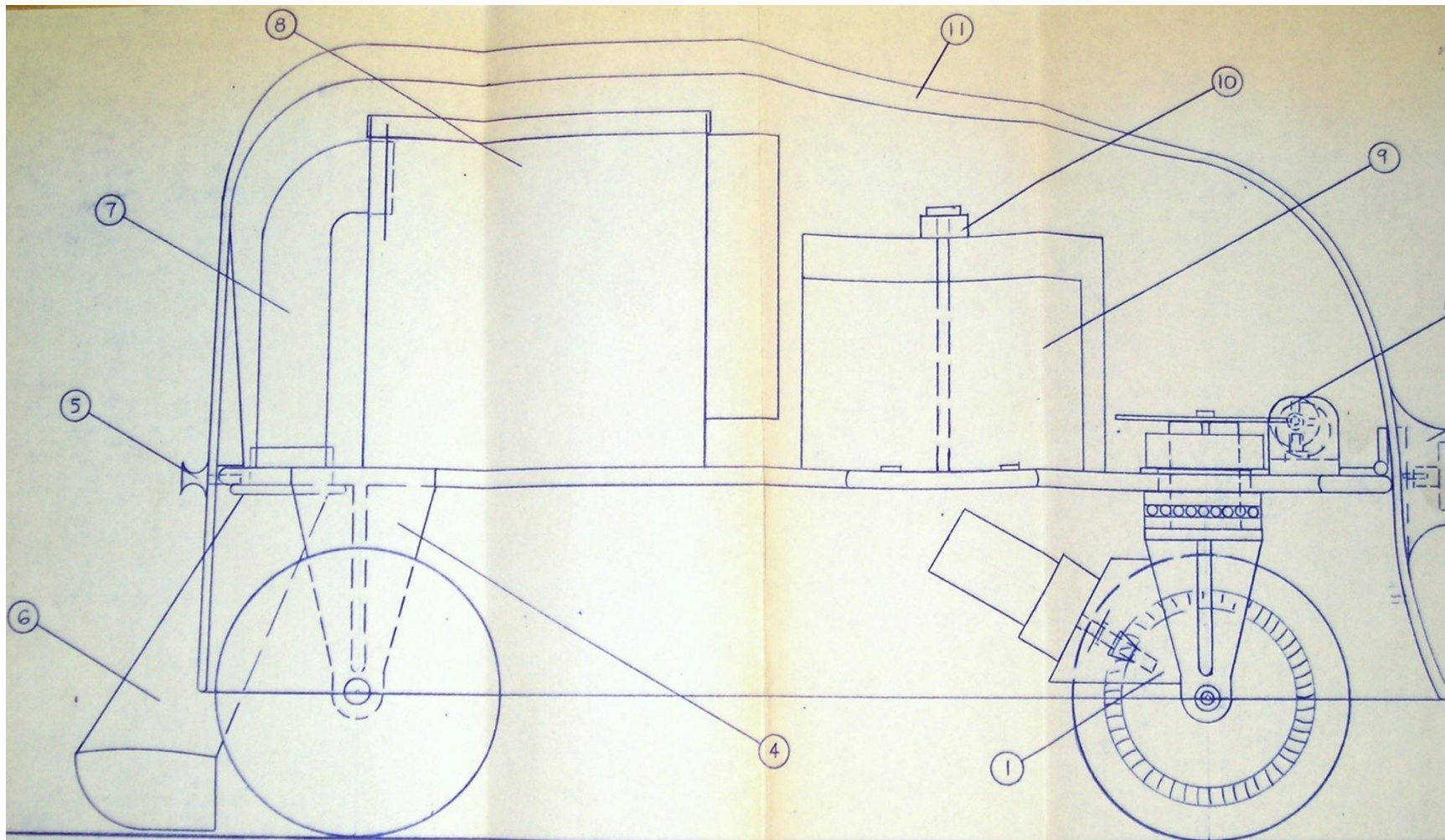
## *RUG BUG*

THE WORLD'S FIRST  
AUTOMATIC HOME  
VACUUM CLEANER



**a<sup>2</sup> TECHNOLOGIES**





1	DRIVE ASSY	100-100B
2	STEERING ASSY	100-200B
3	CHARGER ASSY	100-300B
4	FRAME ASSY	100-400B
5	SHELL LOCK ASSY	100-500B
6	NOZZEL	100-600B

7	INTAKE TUBE	100-700B
8	VACUUM ASSY	100-800B
9	CONTROLLER BRDS.	100-900B
10	BATTERY + CLAMP	100-1000B
11	SHELL	100-1100B
12	WIRING DIAGRAM	100-1200B

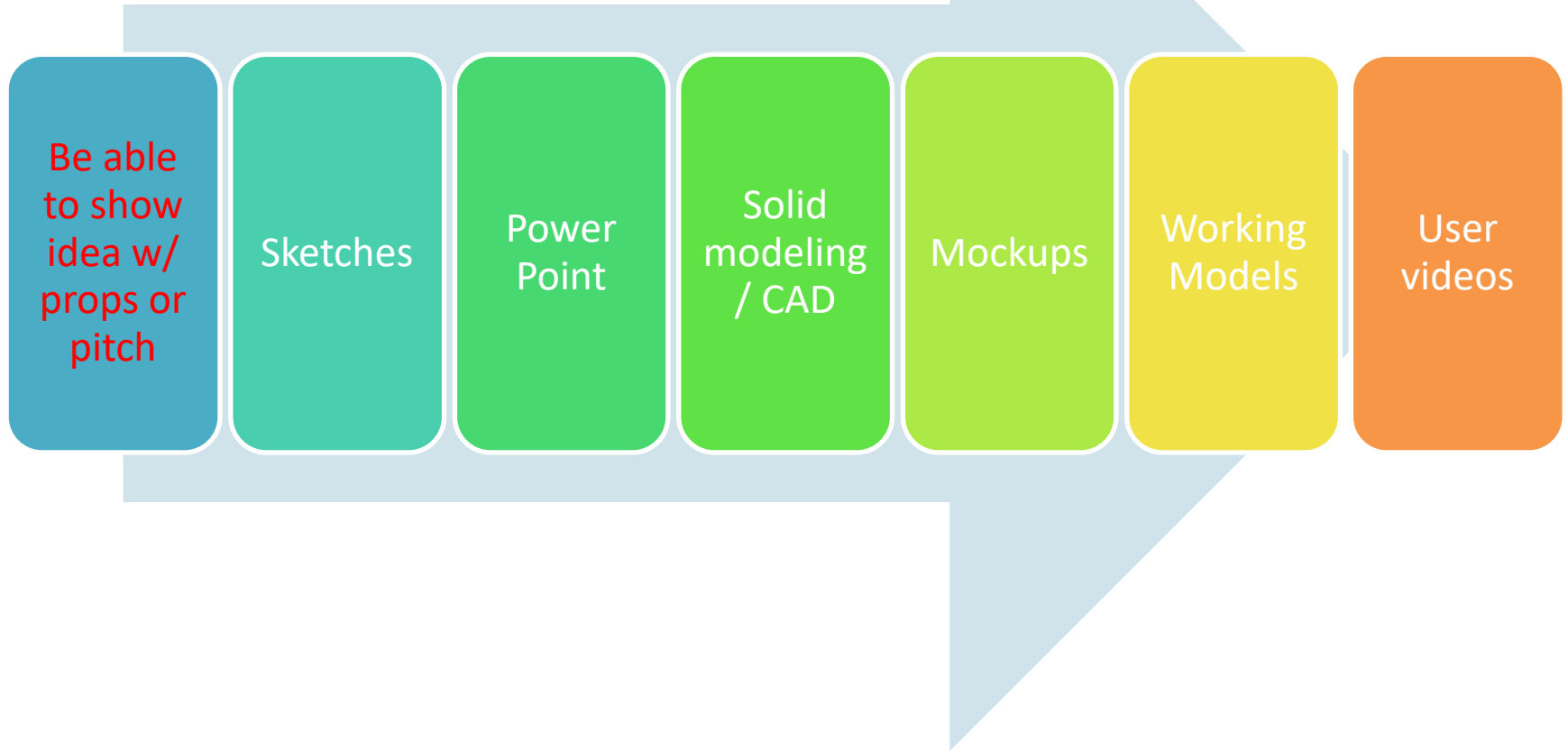
1/2 SCALE

A2 TECHNOLOGIES		
AUTO VACUUM/ROBOT		
100-20B	2/3/86	FELKUS

## Mistake #5

### Poorly Conveying the Idea

*Plan your best presentation*



## Mistake #6

### Presenting Ideas to wrong people @ wrong time

*Don't get ahead of yourself or give away the store*

F&F – Feedback & seed \$/ **protect IP**

```
graph TD; A[F&F – Feedback & seed $/ protect IP] --> B[Pros & mentors – Help plan / build team / protect IP]; B --> C[Kickstarter & Angels – Startup $ & network]; C --> D[Banks/VC – Business Growth after startup]; D --> E[Manufactures + License agreements after IP];
```

Pros & mentors – Help plan / build team / **protect IP**

Kickstarter & Angels – Startup \$ & network

Banks/VC – Business Growth after startup

**Manufactures + License agreements after IP**

Next step... **Plan**

***Consider every invention as a business opportunity***

*Make a plan*

Why do it yourself?

Plan to plan!!!

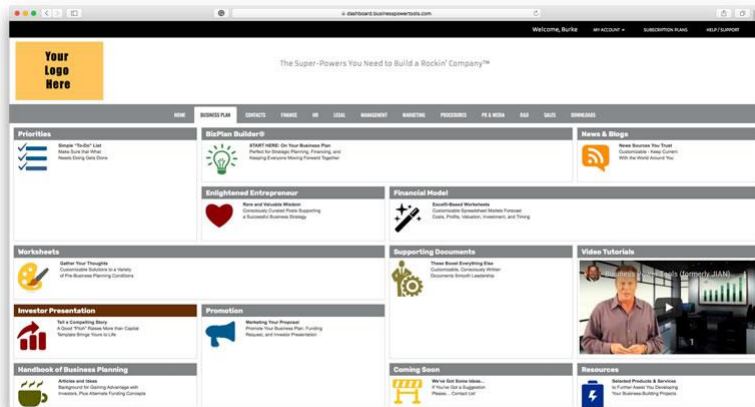
# Mistake #7

## No Business plan

*Most don't plan to fail, they fail to plan*

- Your “roadmap” to success
- For business proposals
- For License agreements
- For your own focus

<http://www.paloalto.com/ps/bp/>

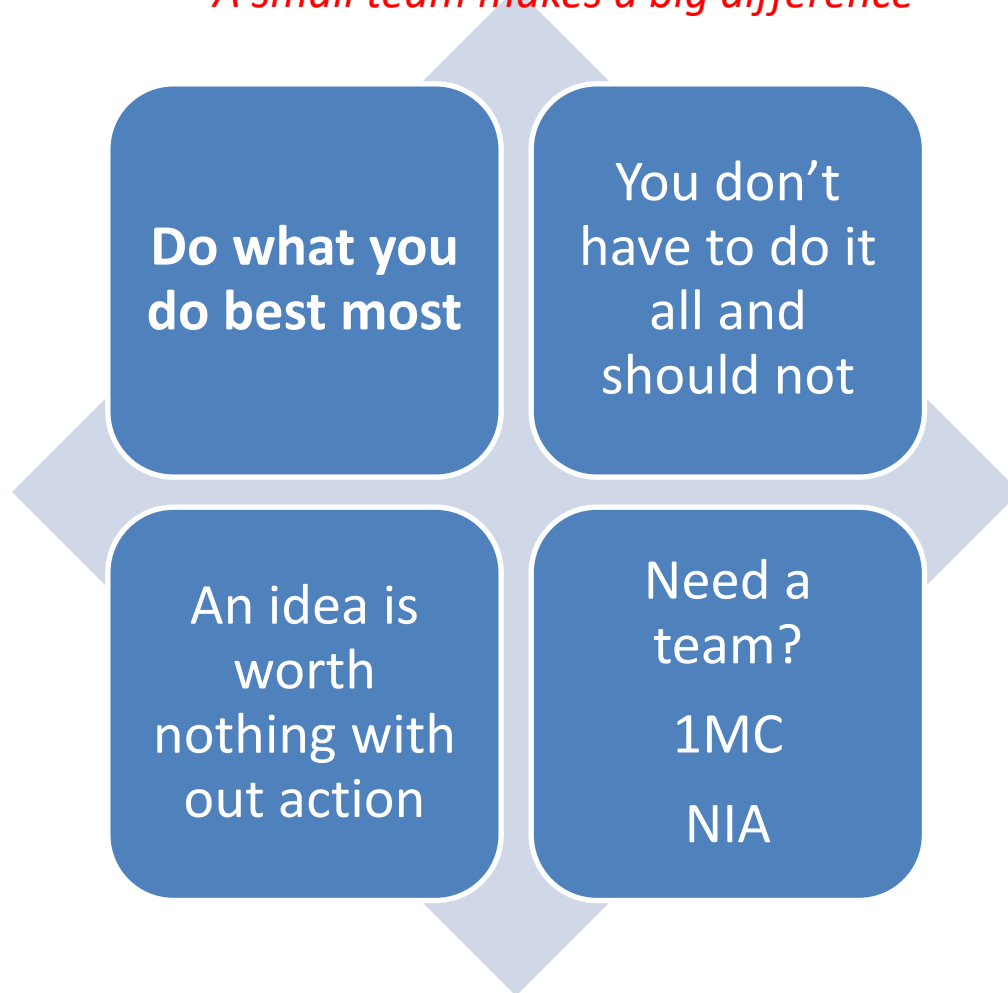




# Mistake #8

## No Team

*A small team makes a big difference*



## Mistake #9

### Underestimating startup time & costs

*Avoiding having to explain why you are not there yet or that you are out of \$*

- Startup 1-3 months
- Research 1-3 months
- Funding \*3-6 months
- Patents 6- 36 months
- R&D 3 -6 months
- Mockups 1-2 months
- Tooling \*3-4 months
- Marketing 1-3 months



## A Squared Technologies, Inc.

Inventor to inventor© "Help for inventors"

### New Product Development Plan© 5 Steps Template

#### INSTRUCTIONS

The template on the CD is customizable using Excel.

- There are two spreadsheet pages.
- Page one covers the tasks to go from *concept to working model*.
- Page two covers the tasks to *prepare your presentation*.

This is an **Approach, Plan then Execute** method to develop a simple electronic product for license or to raise business launch funds.

To begin we recommend printing out both pages of the spreadsheet to reference in Landscape orientation. Stack page one on top page two.

- The time line can be adjusted according to project complexity.
- Software can add weeks.
- Colors represent individuals & specialties. *Fill these in as we go.*
- The sequence is logically arranged in order of process.

With resources and enough people the *concept to working model tasks* can happen concurrent with the *preparing to present tasks*.

Before any work begins an **Approach** is used to vet the usefulness of the endeavor. Is the venture worth it and can it be protected?  
Steps 1 & 2 detail tasks for the **Approach**.

#### TABLE of CONTENTS

Steps	Tasks	Pages
1) Capture Concept	5	2 - 5
2) Analyze Concept	2	5 - 6
3) Plan Concept	13	6 - 13
4) Plan Presentation	14	14 - 20
5) Present Presentation	7	20 - 21

## A Squared Technologies, Inc.

### New Product Development Plan© 5 Steps Template - Project Checklist Example - Simple electronic device



Task	Pre	W1	W2	W3	W4	W5	W6	W7	W8	W9	Post
<b>1 Capture Concept</b>											
1.1 Sketch and Describe Need											
1.2 Web Search											
1.3 Patent Search											
1.4 Matrix Evaluation											
1.5 Provisional Patent Filing											
<b>2 Analyze Concept</b>											
2.1 Focus Group Survey											
2.2 Chart Results											
<b>3 Plan Concept</b>											
3.1 Write Specs and Approve Same											
3.2 Sketch Mechanism											
3.3 RFQ ME Work											
3.4 RFQ EE Work											
3.5 Source Components											
3.6 Breadboard and Test Circuit											
3.7 Design PCB											
3.8 Design Mechanics											
3.9 RFQ Production Costs @ 10k											
3.10 SLA Mechanical Parts											
3.11 Assemble PCB											
3.12 Assemble First Model											
3.13 Test First Model											
<b>4 Plan Presentation</b>											
4.1 Logo / Trademark											
4.2 File											
4.3 Market Statistics											
4.4 Competition											
4.5 Formulate All Costs											
4.6 List Possible Partners											
4.7 Mkt Plan / Materials Design											
4.8 Materials Printing											
4.9 PPT Stats, Device Rendering, Costs											
4.10 Video Screenplay											
4.11 Video Taping											
4.12 Video Edit											
4.13 Post Video											
4.14 Embed in PPT											
4.15 Practice PPT Presentation											
<b>5 Present Presentation</b>											
5.1 List License Firms or Agents											
5.2 Talk Top Choices											
5.3 Pick Agent											
5.4 Plan Approach											
5.5 Send Video											
5.6 Set Meeting											
5.7 Make Presentation											

#### KEY

Colors designate roles or persons  
 If you know the person's name, fill it in. < NAME < NAME < NAME < NAME < NAME < NAME < NAME < NAME < NAME < NAME >  
 If not known, fill in role or vendor type < ROLE < ROLE < ROLE < ROLE < ROLE < ROLE < ROLE < ROLE < ROLE < ROLE >

To make it happen... *Execute*

***If its worth doing its worth doing it right!***

Use your resources

Set specs

Stay on track

Test before selling

# <https://scbos.sc.gov/>

South Carolina's Business One Stop's (SCBOS) mission is to be the one-stop information resource for starting, running, expanding, and relocating businesses in SC.

- [Business Resources](#)
- [Federal Resources](#)
- [State Resources](#)
- [Local Resources](#)
  - [City](#)
  - [County](#)
  - [SCORE Resources](#)
- [Vet, Women, Minority Resources](#)
- [Employer Resources](#)
- [Non-Profit Resources](#)



300A Outlet Pointe Boulevard  
Columbia, S.C. 29210-5666  
(803) 898-5690  
[scboshelp@scbos.sc.gov](mailto:scboshelp@scbos.sc.gov)

# Mistake #10

## Not Delegating

*Being a Team makes accomplishing goals easier and faster*

Not using all  
your resources  
Staying in  
charge,  
“keeping” %,  
Micromanaging

=

***STRESS!!***

Get out of your  
own way!  
Delegating

=

efficiently  
managing

=



# Mistake #11

## Changing specifications

*Finish what you start & stay focused on “Gen 1”  
release – its not perfect, plan innovation!!*

Jell-O specs

Engineering  
misleading  
Marketing & vv

Inaccurate  
market surveys

Make it  
cheaper  
mentality

Unproven  
parts

Obsolete  
technology



# Mistake #12

## Sidestep for Tradeshow

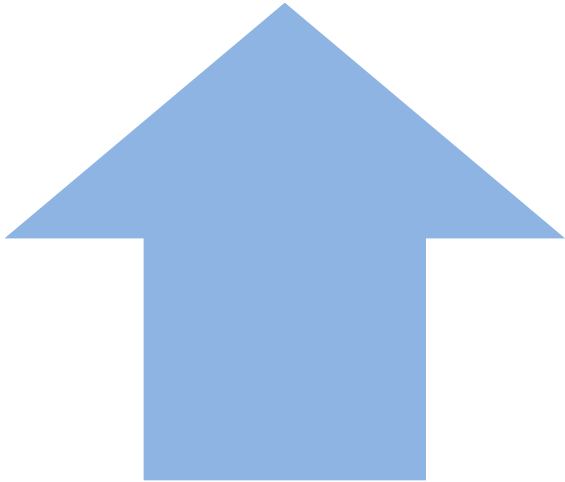
*Fastest way to fall off track*

- Change R&D schedule = setbacks
  - **Want it bad you get it bad**
  - **First impressions matter!!**
- *Next show coming soon*

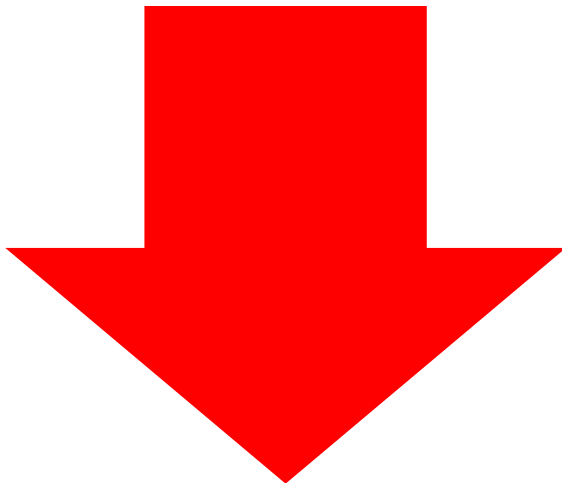
# Mistake #13

## Not fully testing new product

*How to avoid your dream coming back to bite*



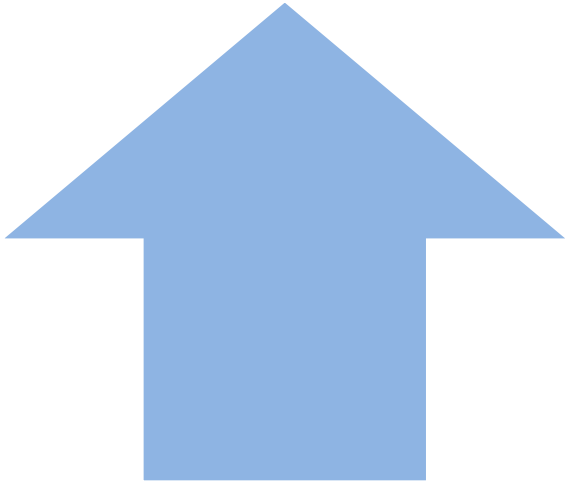
“Kid tested – mother approved”      Material  
science & physics modeled, Empirically tested,  
Burn in & “infant mortality” passed



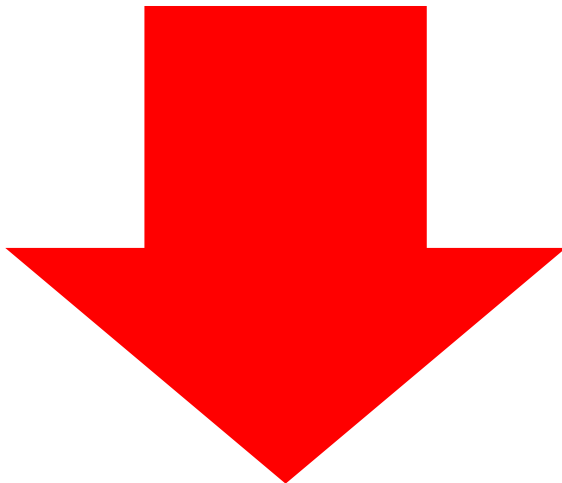
Lost investment & time or “Surprise, back to  
square 1”

# Mistake #14

*How will people know what you have or have done?*



Get seen and known.  
Get sales and recognition!



Don't get seen and known.  
Don't get sales and recognition!

**Lost investment & time**

# Mistake #15

## Insufficient funding

*No \$ plan, plan on no \$*

- Resource requirements & finance planning
- Double estimates
- Contingency plan
- Constant pursuit of funds
- Bootstrapping pains
- Debt trumps equity

# Mistake #17

## Wrong Team

*Gears that don't mesh grind*

- Not same ethics
- Not qualified /experienced
- Not market connected
- Not optimistic
- Not independent
- Not motivated by the vision
- Not effective

...but wait, there's more!

# Pointer #1

## Bad investments

*Don't spend \$ like water, consider **advice!!***

Useless patents

Tooling vs SLA

Going off shore

Advertising too early – don't sell until it's in your hand!!!

Extravagant expenses before any profits

## Pointer #2

### Giving up too soon

*Intelligent Persistence pays*

Best laid plans see setbacks

You have to want it

If you keep focused on your goal you won't be distracted by the obstacles

Persistence is the path to success

Only those that attempt the absurd achieve the impossible



## Pointer #3

### Giving up too late

*Lessons learned*

No market  
found

Patent  
traps

Partner  
snarls

Funding  
flops

Wrong  
structure

*The four most important things startups need to succeed...*

**\$,**

***Management,***

***Market,***

***Motivation***

America's future depends on your ideas!



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Thanks to our SCIF  
Supporters!!



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