The

##### Edison

##### Regional Fair

###### Inventor’s Log

### The Edison Young Inventor’s Code

*I recognize the ‘power of one’, the unlimited potential and influence one person can have. I pledge to myself, I will observe with interest, question with curiosity, research meaningfully, and apply myself with integrity at all times, with admiration for those who contributed before me, with respect for all who share the present, and with the desire to influence the future for the better.*

c.1998 Gary H. Nelson

An official document of the Thomas Alva Edison Regional Inventors Fair

Florida Gulf Coast Hub, Henry Ford Invention Convention Worldwide

My Invention Story

Invention Title

Inventor

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Grade Level

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Student Folder Code

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Successful inventors often learn the hard way about what it takes to get their invention(s) to the marketplace. Every person who markets something eventually learns the value of good planning . . . whether the product happens to be based on one’s STEM research, intellectual or physical abilities, or artistic skills.

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## INVENTION LOGBOOK

**THE FIRST STEP: RECOGNIZING PROBLEMS**

If I plan to invent something worthwhile, I must first identify one or more problems that are of concern to me. ***A problem may affect the young or elderly.*** ***It may be at home, school, work, or play, within the community or on a global scale***. ***It may be on land, in the air or about the water.*** Here are problems that catch my attention along with the reason(s) each are important to me. Besides the potential profit for me personally, who or what will benefit most from solving each problem? ***Thomas Edison said he would not invent anything he couldn’t sell.*** Pay attention to what people want and need! Pay attention when things go wrong (***accidents, illness, disasters***)! Pay attention to population shifts (***demographics***)!

**PROBLEM: WHY THIS IS IMPORTANT**

1.

2.

3.

4.

I am interested in doing something about Problem # \_\_\_\_\_ .

Before I give up my valuable time to work on this problem, it is important to know what solutions other people have already come up with! If I skip this part, I may wind up inventing something that has already been invented. This will prevent me from claiming my idea as *new or novel*. I will need permission from the original inventor to use the idea or else I would be infringing (*stealing* the idea). To the best of my ability, I must prove that I came up with this idea first!

**SEARCHING FOR CLUES**

Here’s the plan. I learned the ***United States Patent Depository Library***, was ***THE PLACE*** ***to perform a “patent search”*** as far back as the late 1700’s! Computer searches are now possible at <http://www.uspto.gov>. By clicking on PATENTS and then on PATENT SEARCH, this will take me to a Search Box where I can use key words to describe my invention and learn what others have already come up with. This can be tricky, so I need to think carefully about how to describe my invention in the simplest of terms! Here are some of the key word descriptions I have come up with:

(Example: *‘fluid container’* key words: bottle, container, cup, glass, jar, vessel.)

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***GOOGLE*** is a great alternative to the USPTO site. For fun and experience, I can go to ***patents.google.com*** and even watch a video on how to make the most of my patent search efforts! ***I’m excited to try this with my experience playing computerized games! It’s really a new type of Quest or Adventure!* *Once I find patents with similar inventions, I can use the references in each patent as clues to expand my own patent search and close in the prize!***

***I’ll make sure to check other places, too, (stores, magazines, field trips – hey, I can even do this on a computer, etc.) to see if products or scientific and engineered ideas like mine exist and are already being sold or put into action to help improve our environment and planet!*** Check out [www.oceancleanup.com](http://www.oceancleanup.com), an invention by a person while in high school!

Having performed this “research” adventure, I believe my idea to be new and original (a true ***invention***) or a unique improvement on what currently exists (***innovation***). ***I am now ready to take the next step!***

**THE CHALLENGE**

***What do Thomas Edison, Nikola Tesla, Dr Grace Murray Hopper, Henry Ford, Dr. Temple Grandin, Jeff Bezos, Ruth Handler, Tim Berners-Lee, Stephanie Kwolek, and Elon Musk have in common? Scientists, inventors and entrepreneurs challenge themselves!*** ***They recognize a problem or limitation and explore what doesn’t exist. They brainstorm, investigate and experiment to find a better solution.*** ***Here is*** ***my personal* *story* *about how I decided on my final idea.*** All the details can be found in my ***LOGBOOK***. ***I will give a very clear account of my journey, what works and what doesn’t.*** I provide ***witnessed proof of my work and the dates I did the work!*** If I read special books or received help or ideas from anyone, I recorded this information, too! ***I record the names of everyone who helped me on my journey*** whether or not I used any of his or her suggestions to improve my invention!

**SUMMARY**

1. This is what I began with: (*My original concept*.)
2. I learned I could do better by adjusting this or adding that. I am including what did not work as well.
3. This is what finally worked best.
4. A List of Key People who helped me doing this Quest to understand and improve my project . . . and how they contributed:

**ORIGINALITY**

**My new or novel idea**

Anyone filing a patent must provide one or more ***CLAIMS*** explaining why his or her idea is ***new, unique and better*** at solving a problem than anyone else has ever come up with to this day! ***This is an explanation of what makes my invention different than what already exists*.**

For example: You have improved a way to better secure a roof shingle so it can not blow off a roof. You did not invent the shingle or the roof nail. You invented the new way to attach it to the roof. Describe the attachment and how it functions to secure the existing shingle in one or more ways that distinguishes it from anything previously used.

**Here are special features I would like to CLAIM about my invention.**

1.

2.

**SAFETY**

***Personal safety and the safety of others***

I have paid careful attention to safety rules at all times! If my invention required using equipment or experimentation, I made sure I had adult supervision, worked under safe conditions with access to a fire extinguisher and eye protection. Here is a written description of what I did to maintain safety during all times.

**LIABILITY**

**The Other Safety Issue**

I have learned inventors must think about liability, the risk of being hurt or causing damage when using a invention – especially MY PRODUCT! Here is what I believe could happen if people are not careful using my product or storing it properly. (*Include any safety improvements made to the product as well as any cautions or safety directions that should accompany this product. Attach an extra page if necessary*.

**PICTURE THIS!**

**Invention Illustration**

Patents require illustrations or drawings of what the invention looks like, including the different parts of the invention and how each part works in relationship to the whole invention. This is a drawing of my invention with special features labeled.

(I understand a computer graphic or hand drawn illustration is acceptable. )

Check one:

[ ] I created this illustration myself

[ ] I had other people assist me : (The Logbook shows this. )

**THE DISPLAY & PROTOTYPE**

**Exhibit Space is limited to 36 inches wide by 18 inches deep**. The standard size display is a **36” x 48”** **Corrugated Tri-Fold Display Board**. If the height exceeds 36”, the display must be stable and not easily toppled over. ***For Virtual Competition, you can create a Digital Display Board in your Student Folder.***

One very important thing about ***my prototype or model is that it represents the actual invention*** but must be made to fit within the exhibit space provided. **For On Site Competition:** ***My invention prototype must fit on or below the exhibit table in the limited space provided.*** For safety and fairness, if my invention model is too big to fit in this space, I will need to find another way to show it (photo, drawing or video). Virtual “Video” Competition performed at home allows for a larger prototype or model. Parents must sign the safety supervision permission at the end of this Log Book.

Example One: If my invention fits on a bicycle, I will take a photo or draw a picture of how it fits on the bicycle. I will not bring in the bicycle itself because it is too big for the space allowed.

Example Two: The invention fits in a wall cabinet or desk. I will not bring in the cabinet or the desk because it is TOO BIG. If I must show it in its place, I will make a smaller model of both my invention and the cabinet or provide a photo, drawing or video.

To be successful, I will need to prove to myself and others will my invention work. I know I have limited funds but I strive to make it ***attractive, efficient, ergonomically designed (what’s this mean?) and economical.*** A prototype is just what I need to accomplish this. ***Oh yeah, it is just fine to save money and use a drawing, a computer graphic image or even my very own computer generated video! Awesome!***

The same thing goes for demonstrating my invention, ***SAFETY comes first!*** If it is too big, noisy, messy, or in any way risky to demonstrate, I will be careful, have appropriate adult supervision, and take pictures or show a video of how it works. The same goes for live animals; they may not be part of the exhibit or demonstration! Just pictures or videos!

**BUILDING MY PROTOTYPE**

***It is a BIG RELIEF to know I can have help with my prototype! If I do, I know it is VERY IMPORTANT to give credit in my LOGBOOK for any help I get.***

Check one:

[ ] I did it myself. [ ] I had other people help me: (Their names and how they helped are entered in my Logbook.)

***Can I use 3D printing? It is very cool!*** *It is definitely worth knowing about this as an inventor. I know I am NOT expected to use this technology for my invention at this competition but if I can I just might look into it and give it a try.*

How much did my prototype cost to make? Here is a list of materials and cost. (Long list? Add a sheet.)

**Parts/Material Cost**

1.

2.

3.

**Total Cost: $ \_\_\_\_\_\_\_\_\_\_\_\_\_**

There is a lot to learn about manufacturing, making special production molds, using the most economical verses the best materials for the product and deciding on the right packaging. ***The retail cost of a product averages about four times the manufacturer’s production cost. Internet sales can impact costs.*** *Why? Consider all the things necessary to get your product to the final user: packaging, advertising, sales people, insurance, transportation, storage, and having money tied up in inventory!* That’s a lot to consider. I might want to ***LICENSE*** my idea to a company***. The benefits of licensing are?***

**MAKING A PROFIT FROM MY INVENTION**

I am pleased with myself knowing that I can recognize a problem and do something about it! ***I have come to realize all the different subjects I am taught in school can influence the success of my invention!*** Understanding and practicing what I learn, I can do things to make my life and the lives of others better – people, animals, plants and more. ***But wait! I can also make a profit by creating a business and help people even more by creating new jobs!***

Then create ***AWARENESS***!

**I am proud to tell everyone about my invention**

**ON SITE COMPETITION: Being Interviewed by the Judges in Person**

I will have the opportunity to ***explain pursuing My Adventure and the Benefits of my invention*** to the Judges during my ***INTERVIEW***. Like the judges, companies would question my product and the work I have performed to determine if it is original and if it has strong ***IMPACTS*** to be successful and profitable. If the answers are yes, this would be very exciting and rewarding.

**VIRTUAL ONLINE COMPETITION: Creating a 4-6 Minute Video Presentation**

I will complete my ***Student Folder*** and will be sure to make note of my ***Student Folder Code***. I understand I will need to make an ***Unedited Video***. I also understand it is okay to be prompted with questions by a person off screen. Cue Cards can also be used to help keep me on track to remind me to discuss important topics but I will not just read cue cards. I will speak in conversation style to the camera. I am inspired by my invention and I am excited to share it on the video!

What I name my invention can be a ***HUGE*** factor in getting ***ATTENTION***. ***Protecting a product’s name with a*** ***TRADEMARK*** ***or literary content with a*** ***COPYRIGHT*** can be even more important and very profitable.

I understand I can use for free a non-registered trademark (**™**) and non registered copyright (c.year- my name) . . . (c.2004 Jamie Doe) by placing symbols in just the right location. These symbols alert everyone to my claim that I came up with a unique product name, phrase, literature, or work of art. I can pay a fee to register the trademark or copyright with the U.S. Trademark Office and Copyright Office in Washington, D.C. A ***Registered Trademark*** is more valuable and is represented by **®** following the product name. A registered copyright symbol is **©.**

Inventors often become entrepreneurs, people who risk time and money for the sake of making a profit. This often requires starting a new business. ***A vital part of successfully getting a new business up and running relies on having a . .***

**“BUSINESS PLAN”**

***This is optional (not required)***

***Entrepreneurs don’t plan to fail, they fail to plan.***

*Most inventors need money to protect their intellectual property, for research or development, to license their new ideas or for manufacturing and marketing. Do you have a really great idea and believe it is a winner? What are you going to do about it? How would you raise the funds to accomplish this?*

I realize I am not required to complete this section for the Regional Invention Fair Competition, but it can be important at the National Invention Convention.

1. Who or what is the competition?
2. Where can I find information about writing a business plan? (eg. One Page Business Plan from the [www.SCORE.org](http://www.SCORE.org) )
3. How many different sources of money could I pursue? (eg. venture capital, angel funding, friends, family, relatives, crowd funding)
4. Any idea how much $$$ this ‘start up’ business will need for the first three years? (Successful startup businesses use this an important milestone.)
5. The positions of leadership and the team of people I envision taking my product or service to the top would consist of?
6. What is a possible ‘Marketing Strategy’ for my product or service? (eg. Licensing, Selling Product or Method, Starting a new business, Internet)

***Just a reminder, “luck’ happens when “preparation” meets “opportunity”!***

**All students are required to have this page attached at the back of their logbook.**

**Your teacher and a parent/guardian are required to sign this form**

I understand, for safety reasons and fairness to other inventors, that I must stay within the limits of the exhibit space provided. I will adjust the size of the prototype or invention model to fit within the space provided. I may use pictures, illustrations and/or videos to represent the invention. I am aware live animals are not allowed to be used as part of my exhibit or presentation. Service animals may accompany a student at the exhibit but may not be used as part of the exhibit. I am aware that no liquid is allowed and no electricity is available. (If liquid or electricity is an essential part of the invention- photos, illustrations or videos are suggested to promote the invention. You may bring laptops or tablets with you on day of fair).

I believe my invention is original! Date \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Inventor \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Grade Level \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_Student Folder Code \_\_\_\_\_\_\_\_\_\_\_\_\_

***Seniors Only****- Would you consider attending a local college or university of a scholarship were awarded?* YES [ ] No [ ]

Invention Title \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

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School \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Name of Teacher (please print) \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Signature of Teacher \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

## PARENT/ GUARDIAN

**VIRTUAL ONLINE COMPETITION: As parent/guardian, I will provide safety supervision, technological support to help my child with being virtually judged if required, and to help follow Virtual Inventor Student Guidelines as provided at** [**www.edisonfairs.org**](http://www.edisonfairs.org) **.**

**Signature** **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**Phone Number** ( **\_\_\_\_\_\_ ) \_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**E-Mail \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**ABOUT ADDITIONAL RESOURCES**

Helpful Inventor Fair Competition resources can be found online at [www.edisonfairs.org](http://www.edisonfairs.org). The *Inventor Fair Student Guidelines* provide additional helpful invention process, invention impact, and inventor communication details to support the information provided in this Log Book. Check out the helpful *RESOURCE LIST* provided, too! There are exciting opportunities along with very helpful information for students of all ages!

Parents/Guardians can better informed by reviewing the website Inventor Fair details at *Guidelines for Parents and Guardians.*