# Sดั! Factory 

Name: $\qquad$

## 

Congratulations! You have started your own company and you are ready to design your first product: a fidget spinner! You will use this worksheet to help you complete the tasks that are part of this process: Do a little research, make your first prototype (the fidget spinner you will design), test the prototype, and market it online. But first, your company will need a name...

Company Name: $\qquad$

## Market Research:

Before manufacturing and selling a new product, it is wise for an entrepreneur (someone who starts a business) to research what types of products his or her customers would like to purchase, and what special features the products should have. Ask your potential customers some questions to help you design a spinner that everyone will want to purchase. Use the chart below to record the information you collect during your interview. Use the blank boxes to add more questions and the interviewee's (person you are interviewing) response.

| Interviewee \#1: |
| :--- |
| What features is he or she interested in seeing in a fidget spinner: |
| How much is he or she willing to spend on a fidget spinner: |
|  |
|  |


|  |
| :--- |
| Interviewee \#2: |
| What features is he or she interested in seeing in a fidget spinner: |
| How much is he or she willing to spend on a fidget spinner: |
|  |

## The Prototype:

Now that you have researched the desires of your target customers, you are ready to design and build your first prototype. Look online for ideas of spinners that feature the qualities your customers are looking for. You will be using LEGO® pieces to create your prototype, so be certain that you have the necessary materials to begin building the spinner.

| Description or Drawing of Materials Used (separate sheet or Google Drawing): |
| :--- |
| Colors and Design: |
|  |
| Drawing or Photo of Finished Prototype (separate sheet or Google Drawing): |
|  |

## Turse and Materials:

Designing a fidget spinner is fun, but you also want to make money selling them. All good businesspeople know that to make money, they need to make their product in the least amount of time possible and with materials that are not too expensive. As part of the prototype process, you need to determine the time it takes to make your spinner and how much the materials cost.

Take your spinner apart and time how long it takes to build the spinner. Repeat the process 3 times, record your results below and circle the quickest time you recorded.

| Time \#1: |  |
| :--- | :--- |
| Time \#2: |  |
| Time \#3: |  |

On average, the cost of a single LEGO ${ }^{\circledR}$ brick is $\$ 0.40$. Count the number of LEGO® pieces you used, and multiple by $\$ 0.40$ to determine the cost of making your fidget spinner.

| Number of LEGO® pieces: |  |
| :--- | :--- |
| Cost of each Lego: | $\mathrm{X} \$ 0.40$ |
| Total cost of materials: |  |

Looking at the amount of time it takes to produce your spinner, and the cost of materials (LEGO®), think of a reasonable price for your spinner.

Cost of Fidget Spinner: $\qquad$

## Marleting:

You are ready to begin marketing your new fidget spinner internationally! Who will your first customers be? Choose a country and currency from the list below:
United Kingdom (British Pound Sterling)


Use the internet to find out the current exchange rate with the US dollar (USD) for the country you chose, and then convert the cost from the US dollar.

| Target Country: |  |
| :--- | :--- |
| Type of Currency (ex: Euros): |  |
| Exchange rate: |  |
| Cost of spinner in US Dollars: |  |
| Price of spinner in target country: |  |

You will need to collect some data to advertise your fidget spinner online. Collect the following data in our Customary Measurement System, and then convert to Metric.

|  | Customary: | Metric: |
| :--- | :--- | :--- |
| Length: |  |  |
| Height: |  |  |
| Width: |  |  |
| Mass: |  |  |

How long does your spinner spin? Time your spinner five times and record the results below.

|  | Spin Time |
| :--- | :--- |
| Test \#1 |  |
| Test \#2 |  |
| Test \#3 |  |
| Test \#4 |  |
| Test \#5 Average Spin Time |  |
| (add all times together and divide by 5) |  |

What will your call your fidget spinner? $\qquad$
How will you describe your fidget spinner to a customer?

## Testing:

If possible, use the people you interviewed on day 1 to test your product. What did he or she think? Ask them to give you a "star" rating and review:

| $1^{\text {st }}$ Reviewer's Name: |
| :--- |
| Number of Stars (out of 5): |
| Product Review: |
|  |
|  |


| $2^{\text {nd }}$ Reviewer's Name: |
| :--- |
| Number of Stars (out of 5): |
| Product Review: |
|  |
|  |

## ÅdVertise!

It's time to use the data you collected, the description you wrote, and your illustrations or photos to create an advertisement.

Include the following in your advertisement:

- Product and company name
- Product description
- Price
- Photo or illustration
- Product information (from the data you collected on size, weight and performance)
- Product reviews


## Reflect:

Was your fidget spinner a success?

Did you customers enjoy playing with it?

What did your customers like best about your spinner?
$\qquad$

What would you change about your spinner to improve upon its design?

What other materials could you use to make a fidget spinner?

