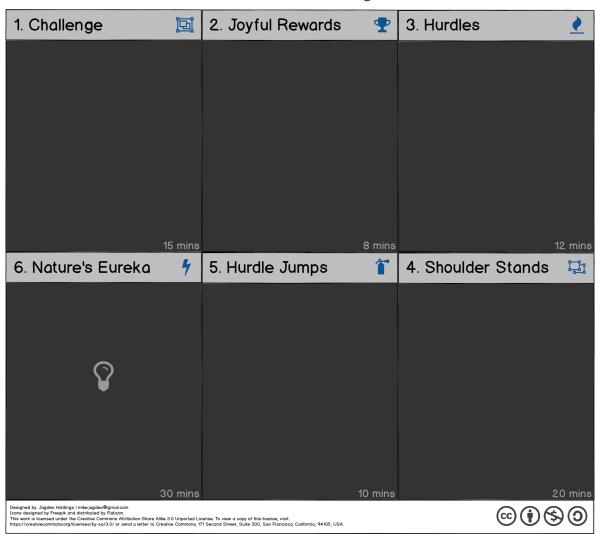


Journey to the Eureka! Moment







# INTRODUCTION

### PREPARING FOR BATTLE

The mind always adheres to the known. The unknown is dangerous because it has no control over it. – Rodney Stephens

The Fourth Industrial Revolution describes a world where artificial intelligence, robotics, and genetic modification **dominate our landscape**. Not surprisingly, the World Economic Forum confirmed that complex problem solving, critical thinking, and creativity will be the three most important skills by 2020.

The uncomfortable question is this: *how exactly do you solve complex problems, let alone create elegant solutions?* So far, you've probably relied on a combination of genius, courage, and coffee to do the heavy lifting – but is that really going to be enough long-term? After all, we live in a world where invisible pieces of software can embarrass the best of us at chess, Jeopardy, and some game called Go *that you've never heard of even of*.

Fortunately, the revolution has also brought with it advancements in EEG technology, allowing us to study the brains of peak performers as they push the boundaries of human achievement. By applying these and other discoveries in neuroscience, flow, visualization,

biophilia and meditation, The Creative Breakthrough Canvas (CBC) has helped everyone from Designers to Software Engineers hit the creative jackpot on a daily basis.

By completing The Creative Breakthrough Canvas (CBC), one frame at a time, you will learn how to feed yourself with the ingredients necessary to generate the Eureka! Moment, that sudden burst of insight which results in a solution so elegant you wonder why it took you so long to see it in the first place. Think of completing the CBC like the swinging of a golf club; a smooth, interconnected process systematically removing the barriers that are preventing you from becoming a creative powerhouse in your industry.

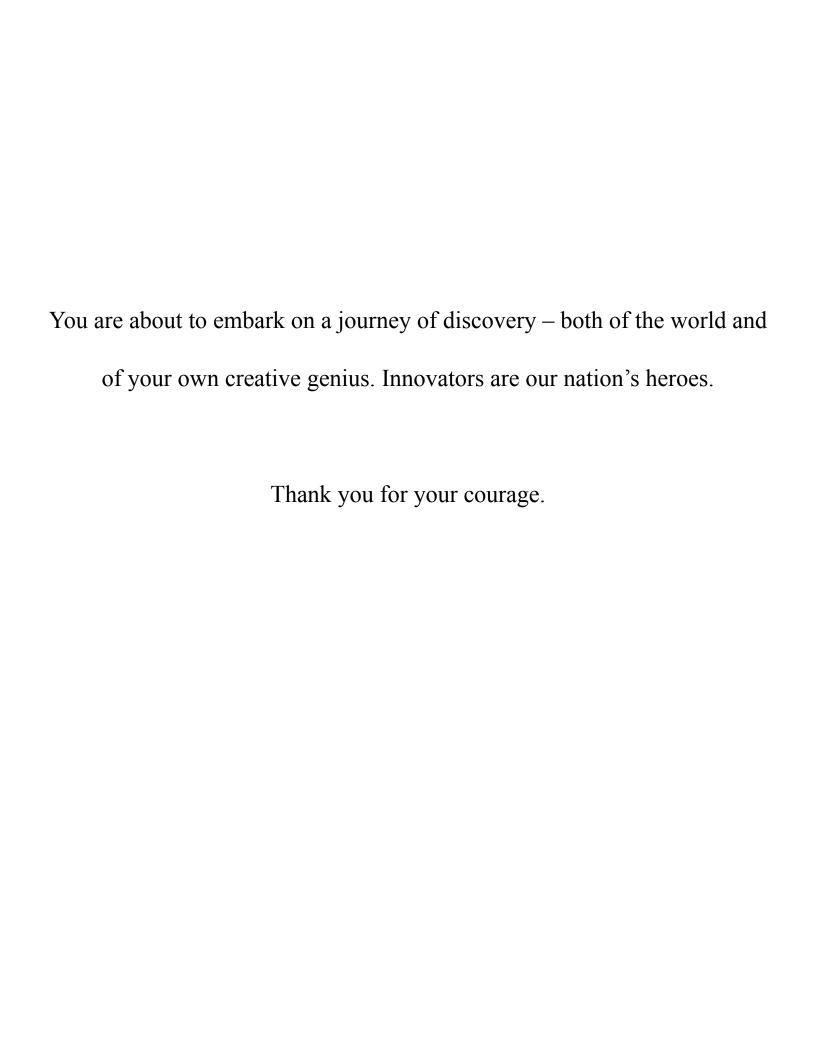
#### **DISCLAIMER**

High consequences bring us into the incontrovertible now. - Wheeler

Oh wait – one thing – and this is important: NO BULLSHIT PROBLEMS OR CHALLENGES. You will not activate your inner genius by insulting it with an easy question. As we will see later on, if you have any hope of generating theta-nested gamma oscillations in order to spark the Eureka! Moment, you're going to need a Challenge that DEMANDS your attention. In other words, if you're not operating at the edge of your skill level, where failure is a real possibility, you've already lost.

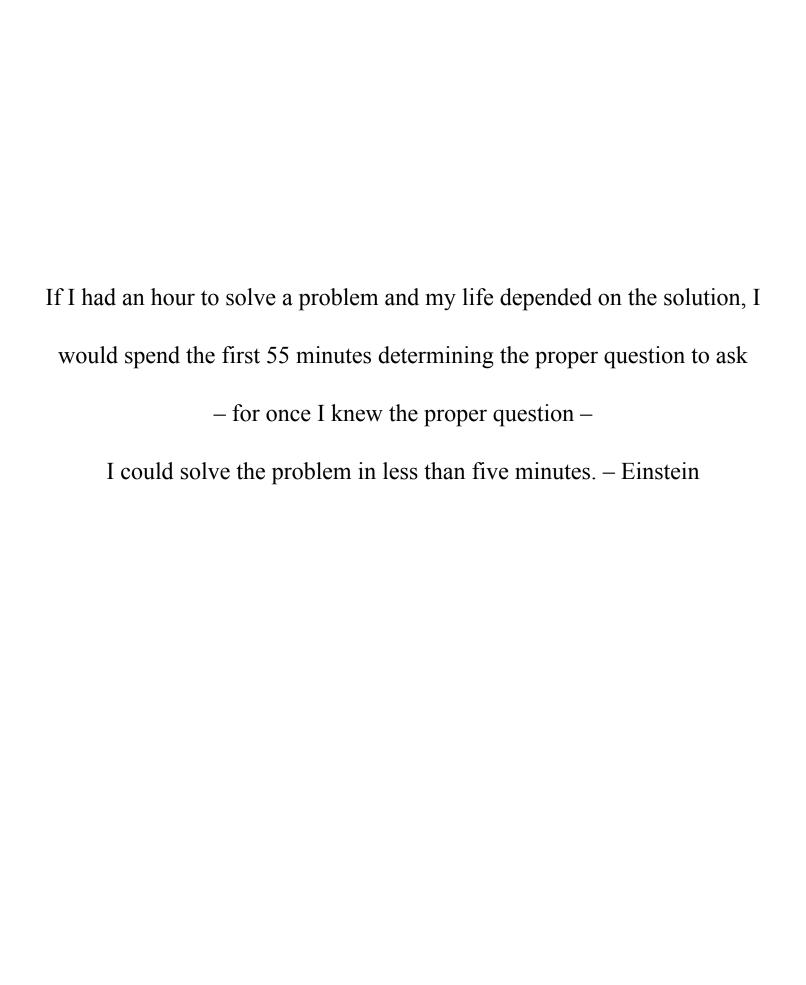
But don't worry: each chapter will tell you what to do and how to do it. Like the heroes that have come before you, all that is required is the courage to face your Challenge head on.

So, pick a challenging challenge, and test your might.





FRAME ONE: CHALLENGE



### **COURAGE**

I wanted you to see what real courage is, instead of getting the idea that courage is a man with a gun in his hand. It's when you know you're licked before you begin, but you begin anyway and see it through no matter what.

- Harper Lee, To Kill A Mockingbird

Why couldn't you be one of the true Thought Leaders in your industry? The simple truth is that you can achieve creative breakthroughs every single day, as long as you are willing to try. In the Challenge Frame, we're going to develop a vision of your objective, rather than focusing on an unsolved mystery.

#### SAMPLE CHALLENGES

- Create an engaging and motivating call-to-action that increases conversions by 10%.
- Devise a solution that speeds up above-the-fold content rendering by 50 milliseconds.
- Design a delightfully useful UI that provides a friction-less user experience for [persona].
- Discover a solution that reduces my tax burden by \$2,000.00.
- Prepare an engaging, multi-modal lecture that sparks the curiosity of students interested in quantum mechanics.
- Create and deliver a pitch that results in \$1M of series A funding by [date].

By focusing on producing tangible solutions, you'll be adhering to the principles outlined in the Agile Manifesto, which prizes delivering working software over comprehensive documentation.

### **BREATHING THROUGH STRUGGLE**

If you just sit and observe...there's room to hear more subtle things — that's when your intuition starts to blossom and you start to see things more clearly and be in the present more...You see so much more than you could see before. — Steve Jobs

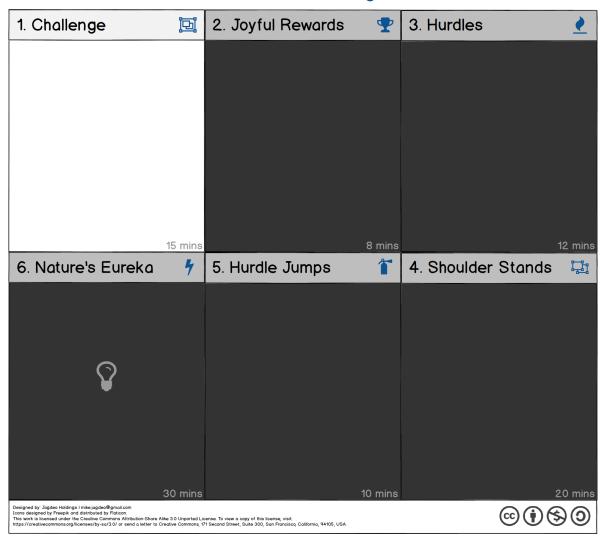
When you're operating on the edge of your skill level, stress is inevitable. Stress produces beta brain wave oscillations and cortisol, and will cause most people to give up before their journey has even begun. Why?

We experience social threats in the same way we experience physical threats. Therefore, your Challenge, from a neurophysiological perspective, *might as well be a wild boar charging at you with its tusks pointed directly at your vital organs*.

When you start to feel the pressure mounting, simply follow the steps outlined in the *Countdown To Clarity*. This simple exercise will allow you to displace the counter-productive beta waves with theta-nested gamma oscillations, setting the stage for your Eureka! Moment.

### **COUNTDOWN TO CLARITY**

- 1. Take a moment to understand your stress by scanning your body, noting where the tension lies. Is it in your neck, chest, nose; all of the above?
- 2. Breathe in slowly and softly through your nose. Observe the expansion of your rib cage and abdomen as you draw more and more oxygen into your body.
- 3. Breathe out slowly and softly through your nose. Observe the contraction of your rib cage and abdomen as you gradually release carbon dioxide.
- 4. Repeat this breathing exercise five times, counting down from 5-4-3-2-1.



# COMPLETING THE CHALLENGE FRAME CHECKLIST

### A. MATERIALS

- One glass of water (in case you get thirsty)
- Paper (writing as a magic wand, good for encoding)
- Pen/Pencil

### **B. PRE-FRAME RITUAL**

- Clean your work area of any and all distractions
- Put your phone on Silent/Airplane Mode
- □ **Set Timer:** 15 minutes

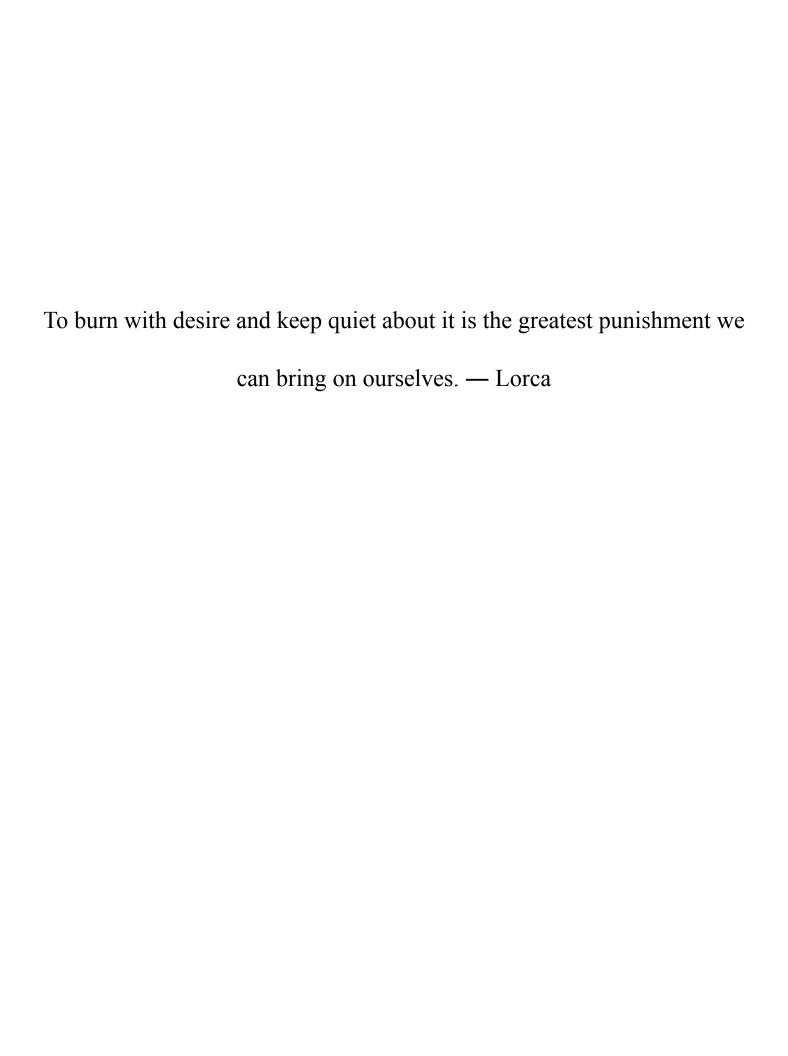
### C. READ & WRITE

3.	Draw a diagram which shows the major elements/key players involved.
4.	
5.	Take a break for five minutes. <i>Really?</i> Yes, really!
6.	Welcome back. Write the third version of your Challenge as clearly and as descriptively as you can in
	one complete sentence. Update your diagram accordingly.
7.	Bonus: Can your Challenge be compared to a system that already exists (i.e. an assembly line, the
	farming process, etc.)? Describe the process out loud, using your hands or objects to describe what's
	happening.

Now that you know your objective, it's time to add intrinsic and extrinsic
motivation to the mix. In this step, we are going to outline all of the
delicious and mouth-watering benefits that will be showered upon us when
we trigger the Eureka! Moment.



FRAME TWO: JOYFUL REWARDS

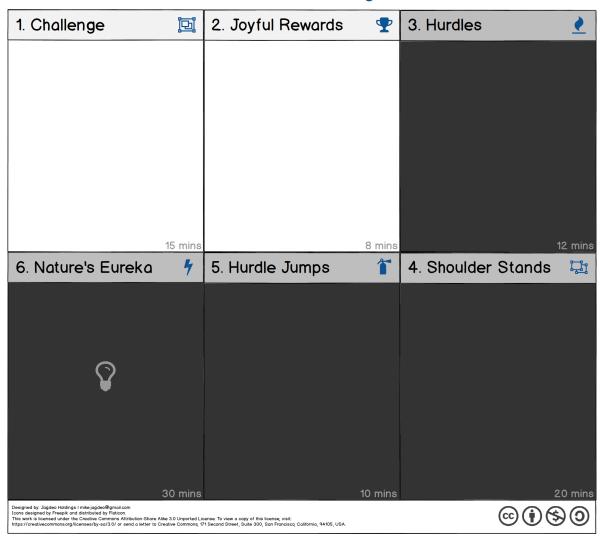


### **DESIRE**

A creative man is motivated by the desire to achieve, not by the desire to beat others. – Ayn Rand

Most treatises on creativity completely forget the most important part: DESIRE. In the second frame of the CBC, we get the chance to add emotions of adventure, joy, significance, and contribution, emotions that are going to compel you to keep going when the sky gets cloudy.

Of course, with enough courage, you can attempt just about anything. But why put so much pressure on yourself? If the carrot and the stick is the only way to motivate a donkey, why not deep fry the carrot and add sprinkles to the mix? You don't have to kick a donkey in the ass if the carrot is adequately seductive.



# COMPLETING THE JOYFUL REWARDS FRAME CHECKLIST

A. PI	RE-FRAME RITUAL
	Put your phone on Silent/Airplane Mode  Set Timer: 8 minutes
B. RI	EAD & WRITE
0	Imagine that a MIND-BLOWING solution to your challenge has just popped into your head. See yourself actually experiencing the Eureka! Moment.  Now, what emotions are coursing through your body (i.e. joy, excitement, relief, etc.)?
0	What financial rewards are going to come down the pipe? Who's the first person you're going to tell? Will a book be in the works? Are you going to treat yourself to dinner? Will you be up for a promotion?

0	Who will be positively affected by your solution? How will their lives change
	as a result of your courageous genius?



## FRAME THREE: HURDLES



### THE END OF CATASTROPHIZATION

There lies the port; the vessel puffs her sail:

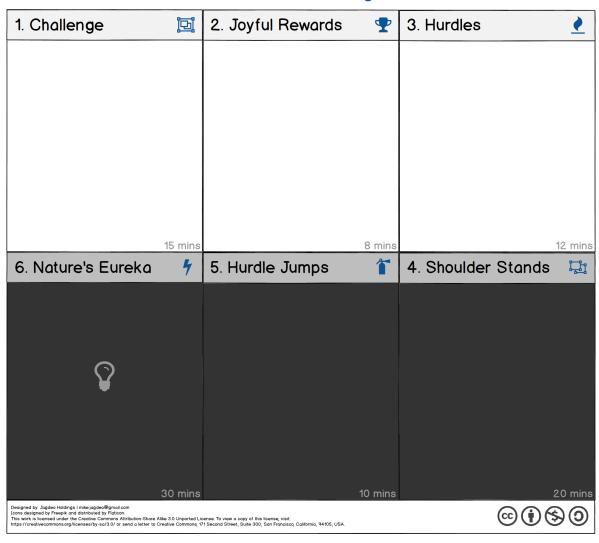
There gloom the dark, broad seas. - Tennysson, Ulysses

Now comes the easy part: writing down all of the reasons why your Challenge is so damn difficult. When faced with a difficult task, the part of us that seeks certainty and security floods our consciousness with all of the obstacles, missteps, and potential causes of failure threatening to end our quest (Seneca future thinking perverted). Unfortunately, predicting difficulty often causes us to avoid difficulties altogether. Why?

When we think about a difficulty, we automatically catastrophize or imagine the worst possible outcome in vivid neurophysiological detail, causing us to curl up into the fetal position.

And now you see why we started with your Joyful Rewards. Look back at that list – are you going to give up all of those invigorating benefits just because your imagination is playing tricks on you?

Not this time. Not anymore. **There is no retreat**.



### COMPLETING THE HURDLES FRAME

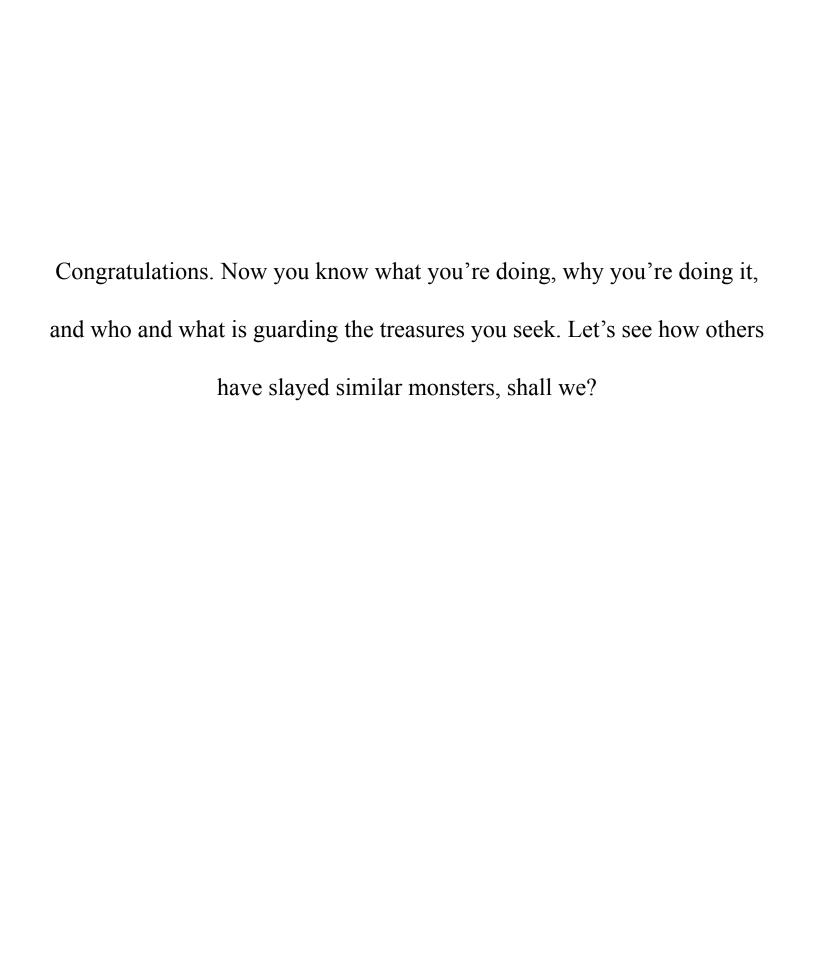
### A. PRE-FRAME RITUAL

- □ Put your phone on Silent/Airplane Mode
- Set Timer: 12 minutes

### **B. READ & WRITE**

	_
What are the	reasons your Challenge is so difficult? Why have others give
up trying to s	olve it in the past?
up trying to s	olve it in the past?
up trying to s	olve it in the past?
up trying to s	olve it in the past?

0	How might you fail?			
0	Imagine that you have just found a ridiculously amazing solution. Picture			
	yourself having, and then celebrating, the Eureka! Moment. What are some			
	of the key issues that you were able to overcome along the way?			





## FRAME 4: SHOULDER STANDS

Creativity is the power to connect the seemingly unconnected Plo	omer

### **CONSTRUCTIVE CROSSFADING**

Time and time again, the ideas that spark the best solutions are from similar problems in different industries. – Knapp, Google Ventures

In Koestler's The Act of Creation, he argued that all invention is the result of the sudden collision of two habitually incompatible frames of reference. Think about everything from the apple falling on Newton's head to Nutella, and you'll get the idea.

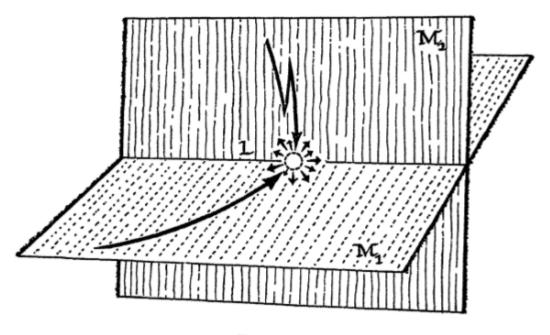
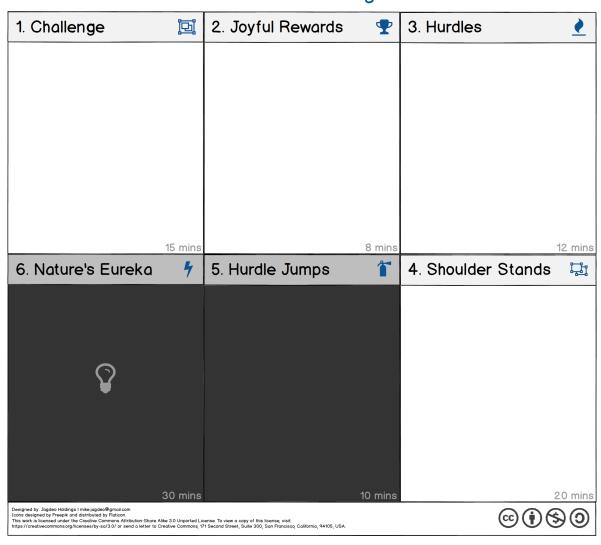


FIGURE 2

In this step, we are going to create the perfect conditions for the Eureka! Moment by providing our brains with solutions from adjacent industries, solutions we would have NEVER thought of on our own. Heck, even Einstein worked in a patent office for three years before concluding that  $e = mc^2$ !



### COMPLETING THE SHOULDER STANDS FRAME

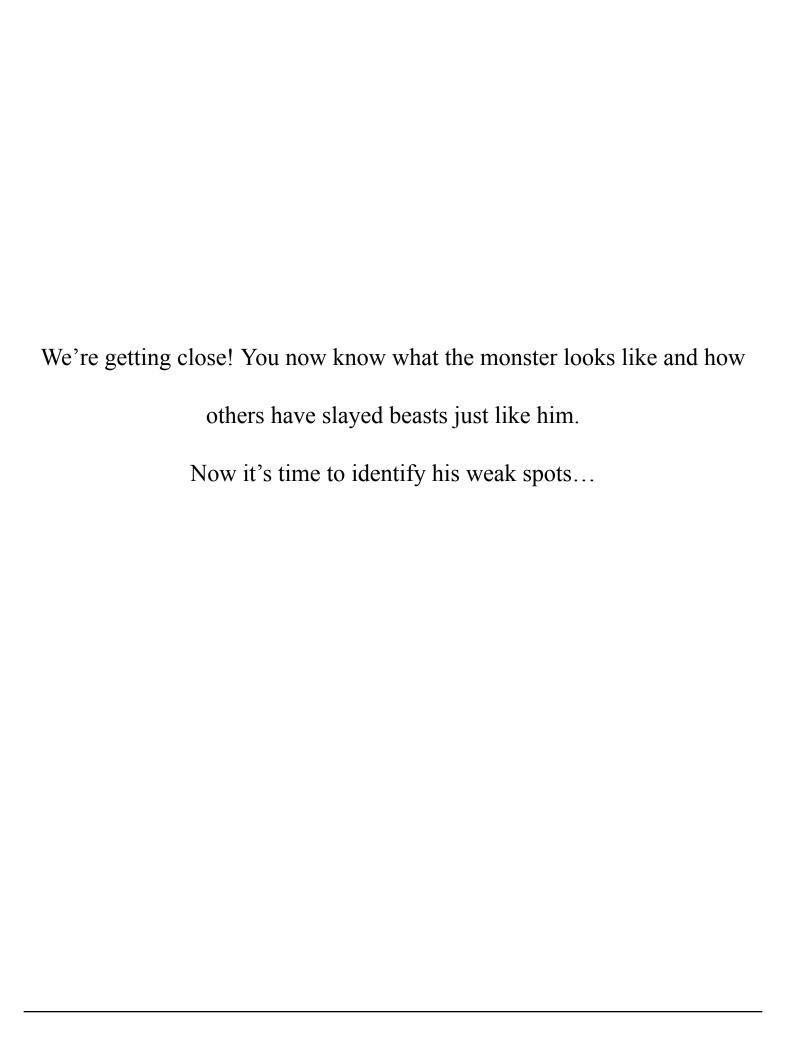
### A. PRE-FRAME RITUAL

Put your phone on Silent/Airplane Mode

Set Timer: 20 minutes

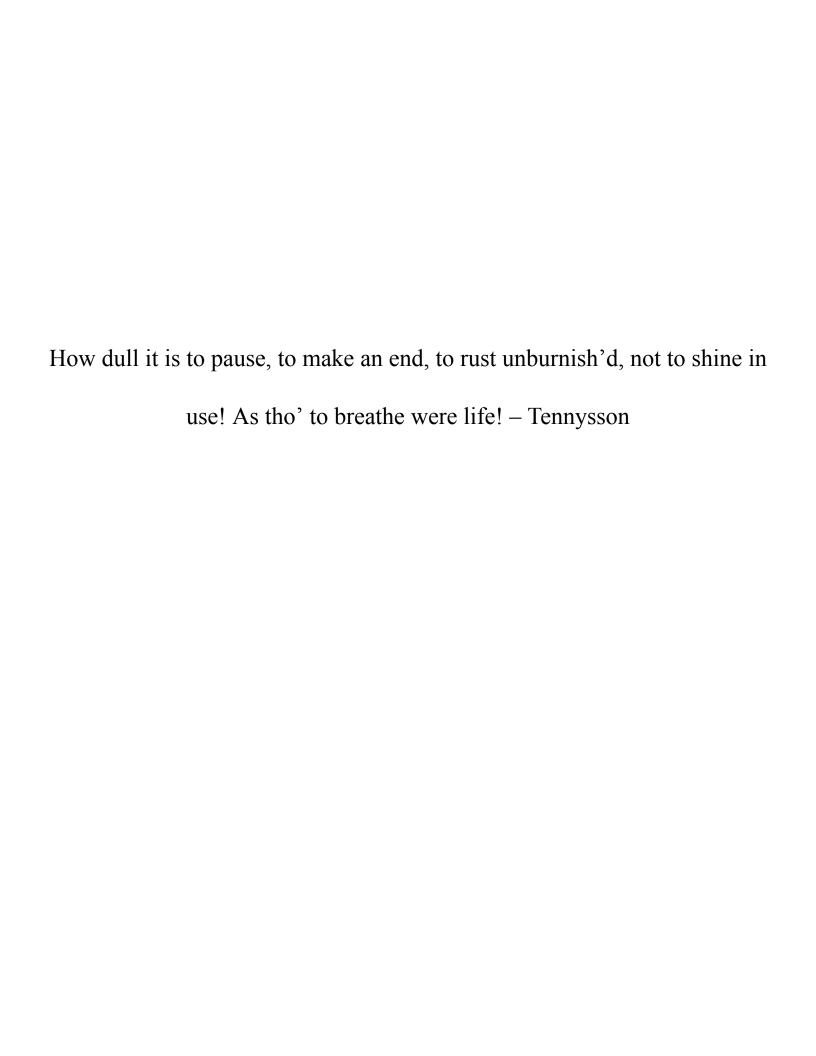
### **B. READ & WRITE**

- Chances are, you're not the only one trying to solve this challenge. Google your objective in its simplest form and see what OTHER INDUSTRIES have come up with. Draw diagrams and visuals of their approaches.
- Stuck? If you're a software engineer, how have developers in other languages come to a solution? If you're a Copywriter, how have other brands with a similar market positioning as yours captured their audience's attention? The key here is to find solutions from OTHER INDUSTRIES.





# FRAME FIVE: HURDLE JUMPS



### **EMPHASIZING THE START**

Even though the future seems far away, it is actually beginning right now. - Mattie Stepanek

Jason Selk, who played for the legendary coach John Wooden, said that emphasizing the start was one of the most important lessons he ever learned. Most of the times, fear of failure paralyzes us so completely that we don't even make a single attempt! Can you imagine a basketball player never taking a free throw because he was afraid of missing?

We do this in our own lives all the time, though. We don't even suggest solutions because we're afraid of getting the wrong answer, even though making mistakes in the right direction is better than giving up. Let's be clear: you do not live in a reality television show. Mistakes are made by the courageous because they are willing to face temporary failure – and even embarrassment - in the pursuit of greatness.

In this next step, we are going to come up with potential solutions by providing answers to the easiest Hurdles that we identified in Step 3.

## The Creative Breakthrough Canvas

1. Challenge	垣	2. Joyful Rewards	<b>P</b>	3. Hurdles	•
	15 mins		8 mins		12 mins
6. Nature's Eureka	4	5. Hurdle Jumps		4. Shoulder Stands	įŢį
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## COMPLETING THE HURDLE JUMPS FRAME

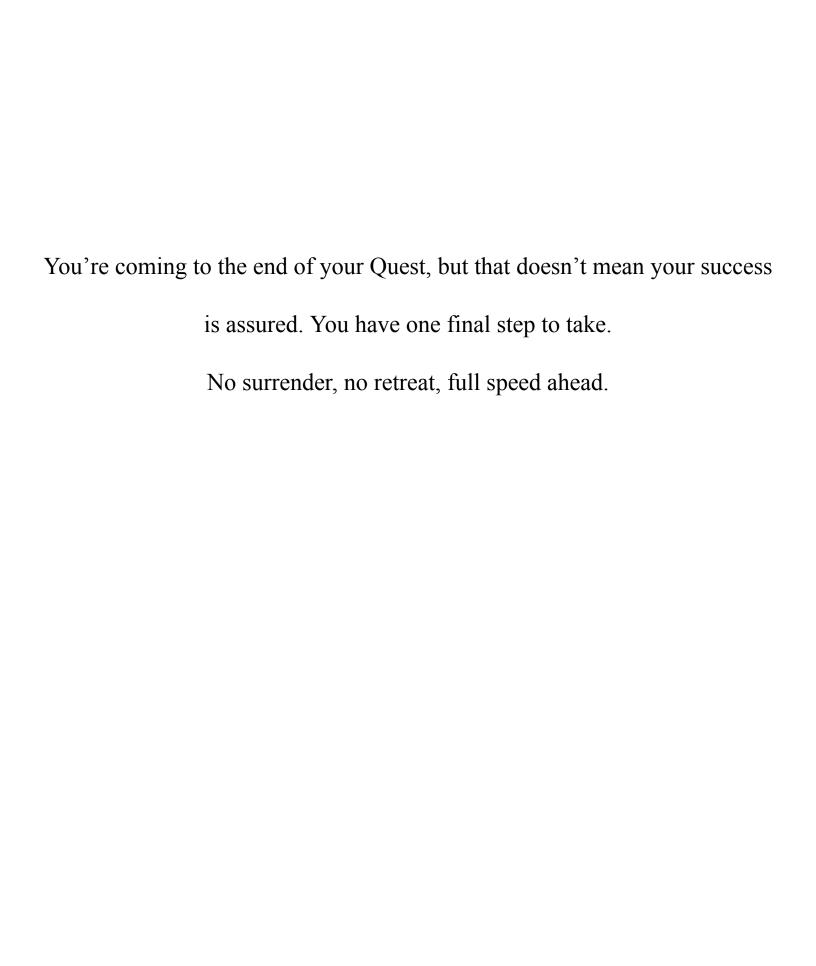
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		17				- I				

Put your phone on Silent/Airplane Mode

• **Set Timer:** 10 minutes

## B. READ & WRITE

0	Take a look at the Hurdles from Step 3. List the Hurdles that are the easiest to address.
	How might you solve these? Start chipping away at your Challenge by going
D	through each of these Hurdles, one-by-one, and jotting down ideas on how you might address them.
0	Stuck? Write down answers that you know won't work. Again, making
	mistakes in the right direction IS progress!





## FRAME SIX: NATURE'S EUREKA

There is no better designer than Nature. – Alexander McQueen

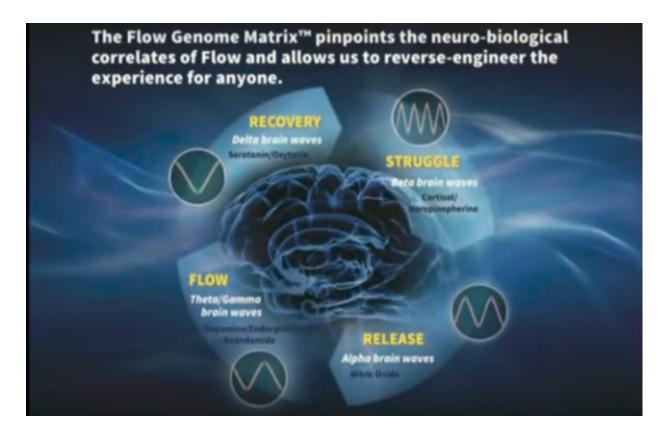
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### HACKING THE EUREKA! MOMENT

Fellow, stand away from my diagram. - Archimedes

Scientists have now shown that we can improve our ability to solve problems creatively by spending time in nature. If you've read anything about Isaac Newton (gravity), Johannes Gutenberg (printing press), or even recently pioneers like Trevor Blake (cancer research) and Yitang Zhang (twin primes), one thing is clear: nature played a vital role in their creative breakthroughs.

For far too long, we've treated ourselves like 19<sup>th</sup> century English factory workers – that stops NOW. A desk isn't the only place that you can work constructively, no matter what your micromanaging boss might have you believe.



Specifically, the walk you're about to take is going to help you enter into a state of flow, whereby the following naturally-occurring neurochemicals will flood your system:

- Dopamine (cocaine)
- Seratonin (MDMA)
- Anandamide (marijuana)
- Norepinephrine (speed)

This neurochemical feast, not to mention the ensuing theta-nested gamma oscillations, will further heighten your ability to generate the Eureka! Moment.

## The Creative Breakthrough Canvas

1. Challenge	回	2. Joyful Rewards	<b>T</b>	3. Hurdles	<u> </u>
	15 mins		8 mins		12 mins
6. Nature's Eureka	4	5. Hurdle Jumps	1	4. Shoulder Stands	ij
¥					
	00		40		20 1
Designed by Jagdeo Holdings I mike jagdeo@gmail.com Icons designed by Freepik and distributed by Flaticon. This work is licensed under the Creative Commons Attribution-Share https://creativecommons.org/licenses/bys-a3/o/ or send o letter to to	30 mins	rense. To view a copy of this license, visit:	10 mins	(a)	20 mins

### **COMPLETING THE NATURE'S EUREKA! FRAME**

#### A. MATERIALS

- Your completed CBC
- Pen/Pencil

#### **B. PRE-FRAME RITUAL**

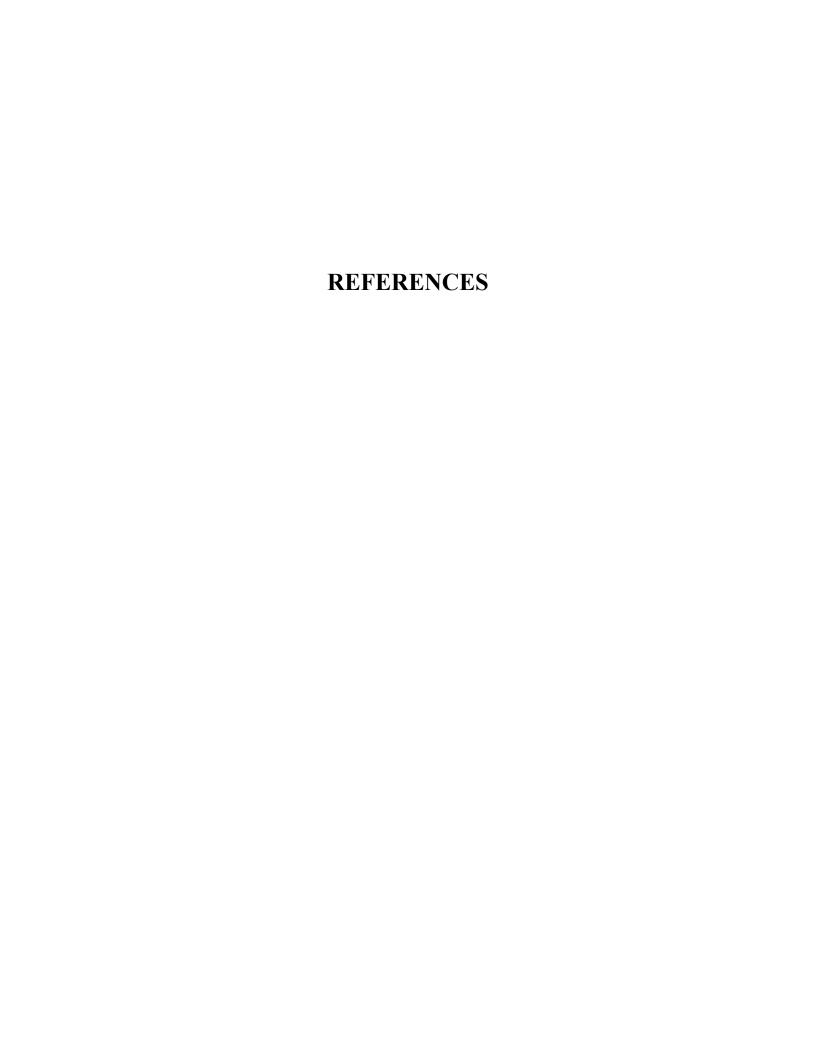
- Put your phone on Silent/Airplane Mode
- □ **Set Timer:** 30 minutes

#### C. READ & WRITE

- Review your CBC, frame by frame this is YOUR work of art! Congrats! The hard work is done. Now we're going to activate a different part of your brain while resting and restoring your rationale, analytic mind. The Eureka! Moment could happen as soon as you step outside; you just never know.
- Read over your Challenge three more times.
- Go for a slow, relaxed walk in nature (or as close to nature as you can get).
   During your walk, observe how your body breathes all by itself. Breathe in through your nose abdomen/rib cage expands breathe out slowly and softly

- through your nose abdomen/rib cage contracts. Repeat five times and observe your breath naturally slowing down.
- Think about all of the invigorating joys that are about to come your way. Think about all of the people who are going to benefit from your solution. See them rejoicing at your result. Really feel the joy and satisfaction.

Originality is little more than skill in concealing origins	s. – Joad



#### INTRODUCTION

#### • Preparing for Battle

- Top three skills required by 2020: Gray, Alex. "The 10 skills you need to thrive in the Fourth Industrial Revolution." *World Economic Forum*, https://www.weforum.org/agenda/2016/01/the-10-skills-you-need-to-thrive-in-the-fo urth-industrial-revolution/kills Required by 2020
- o AI vs. Humans:
  - **Chess:** "Deep Blue." *IBM*, http://www03.ibm.com/ibm/history/ibm100/us/en/icons/deepblue/.
  - Go: Wood, Geordie. "Google's AI Wins Fifth And Final Game Against Go Genius Lee Sedol." Wired, https://www.wired.com/2016/03/googles-ai-wins-fifth-final-game-go-genius-lee-sedol/.
  - Jeopardy: Best, Jo. IBM Watson: The inside story of how the Jeopardy-winning supercomputer was born, and what it wants to do next." *TechRepublic*, http://www.techrepublic.com/article/ibm-watson-the-inside-story-of-how-the-jeopardy-winning-supercomputer-was-born-and-what-it-wants-to-do-next/.

#### • Disclaimer

o **Challenge/Skills ratio:** Kotler, Steven. *The Rise of Superman: Decoding the Science of Ultimate Human Performance*. Amazon Publishing, 2014, pp. 144.

#### • Theta-nested Gamma Oscillations ☐ Creativity

- o Lisman, John. "Theta and Gamma Oscillations as the Clocking System for a Neural Code used by Cortex and Hippocampus." *Gatsby Computational Neuroscience Unit*, http://www.gatsby.ucl.ac.uk/workshop-sept-2004/JohnLisman.pdf
- o Lisman, John, Ole Jensen. "The Theta-Gamma Neural Code." *Neuron*, vol. 77, no. 6, 2013.
- o Colgin, Laura Lee. "Theta-gamma coupling in the entorhinal-hippocampal system." *Current Opinion in Neurobiology*, April 2015.
- o Butler, James L., et al. "Intrinsic Cornu Ammonis Area 1 Theta-Nested Gamma Oscillations Induced by Optogenetic Theta Frequency Stimulation." *The Journal of Neuroscience, June 2016.*
- o Kotler, Steven. *The Rise of Superman: Decoding the Science of Ultimate Human Performance*. Amazon Publishing, 2014, pp. 50

FRAME ONE: CHALLENGE

#### Courage

- o **Agile Manifesto:** Fowler, Martin. "Writing The Agile Manifesto." *Martin Fowler*, http://www.martinfowler.com/articles/agileStory.html.
- o **Beta brain waves:** Kotler, Steven. *The Rise of Superman: Decoding the Science of Ultimate Human Performance*. Amazon Publishing, 2014, pp. 33
- o Cortisol: Ibid, pp. 70, 72
- o Theta-nested Gamma Oscillations: Ibid, 50

#### • Pre-Frame Ritual

- o Silent/Airplane Mode:
  - Canfield, Jack et al. *The Power of Focus*. Health Communications Inc, 2000.
  - Kotler, Steven. *The Rise of Superman: Decoding the Science of Ultimate Human Performance*. Amazon Publishing, 2014, pp. 41.

### • Completing the Challenge Frame

- o **Drawing a diagram:** McKim, Robert. *Experiences in Visual Thinking*. Brooks/Cole, 1980.
- o Breaking out of One Thinking Language:
  - Cameron, Kim, David Whetton. Development Management Skills. Prentice Hall, 2011, pp. 187.
  - Koestler, Arthur. The Act Of Creation. Hutchinson & Co., 1964, pp. 177.

#### FRAME TWO: JOYFUL REWARDS

#### 1. Desire

1. **Adventure, Joy, Significance, Contribution:** Robbins, Tony. *Unleash The Power Within*. Simon & Schuster, 2012.

#### 2. Competing the Joyful Rewards Frame

1. Intentions: Blake, Trevor. *Three Simple Steps*. BenBella Books, 2012, pp. 103.

#### FRAME THREE: HURDLES

- The End of Catastrophization
  - **o** The need for Certainty & Security Robbins, Tony. *Unleash The Power Within*. Simon & Schuster, 2012.
- Completing the Hurdles Frame
  - **o Solutions from other industries:** Knapp, Jake. *Sprint*. Simon & Schuster, 2015, pp. 64.

#### FRAME FOUR: SHOULD STANDS

- Creative Crossfading
  - o **Bisociation:** Koestler, Arthur. The Act Of Creation. Hutchinson & Co., 1964, pp. 35.

#### FRAME FIVE: HURDLE JUMPS

- Emphasizing the Start
  - o **Emphasize the Start**:Selk, Jason. Executive Toughness. McGraw-Hill Education, 2011, pp. 79.
  - o Good scientists study the most important problems they think they can solve: Medawar, Peter. *Pluto's Republic inc. The Art of the Soluble*. Oxford Paperbacks, 1984.
- Completing the Hurdle Jumps Frame
  - o **Making Mistakes in the Right Direction:** Fermat's Last Theorem, BBC, 1996, 11:30.

#### FRAME SIX: NATURE'S EUREKA

#### Eureka! Moments

- o Blake, Trevor. *Three Simple Steps*. BenBella Books, 2012, pp. 58.
- o Csicsery, George. "Yitang Zhang Counting from Infinity." Zala Films, 2013, 37:25.
- **Breaking out of the Industrial Revolution's work schedule**: Schwartz, Tony, Jim Loehr. *The Power Of Full Engagement*. Free Press, 2005, p.41.

#### Nature + Creativity

- o Berman, Michael et al. "Interacting with nature improves cognition and affect for individuals with depression." *Journal of Affective Disorders*, 2012.
- o Atchley, Ruth Ann et al. "Creativity in the Wild: Improving Creative Reasoning through Immersion in Natural Settings." *PLoS ONE*, 2012.
- o Berman, Marc G. et al. "The Cognitive Benefits of Interacting With Nature." Psychological Science, 2008.
- o Beil, Kurt, Douglas Hanes. "The Influence of Urban Natural and Built Environments on Physiological and Psychological Measures of Stress— A Pilot Study." *International Journal of Environmental Research and Public Health*, 2013.

#### • Flow's Neurochemical Feast

o Kotler, Steven. *The Rise of Superman: Decoding the Science of Ultimate Human Performance*. Amazon Publishing, 2014, pp.72-73.