The Lean Startup Terms

1. **3D Printing and Rapid Prototyping Tools:** New technologies are allowing entrepreneurs to build small batches of products that are of the same quality but at much lower cost and must fast
2. **3 engines of Growth:** 1. Paid
   2. Viral
   3. Sticky
3. **3 mA's of metrics:** 1. Actionable
   2. Accessible
   3. Auditable
4. **4 questions:** Do consumers recognize that they have the problem you are trying to solve? If there was a solution, would they buy it? Would they buy it from us? Can we build a solution for that problem
5. **The 5's ways:** Provides an Opportunity to discover what that human problem might be. Approach acts as a natural speed regulator.
   1. Why did the machine stop?
   2. Why was there an overload?
   3. Why was it not lubricated sufficiently?
   4. Why was it not pumping sufficiently?
   5. Why was the shaft worn out?
6. **Accessible Metrics:** Departments often spend their energy learning how to use data to get what they want rather thanks genuine feedback to guide their future actions.
7. **Actionable Metrics:** It must demonstrate clear cause and effect People are better able to learn from their actions.
8. **Actionable Metrics(definition):** The kind of metrics we use to judge our business and our learning milestones
9. **Adaptive Organization:** Process of orientation was subject to constant experimentation and revision so that it grew more effective. Automatically adjusts its process and performance to current conditions.
10. **As a Side Effect of Products Usage:** Fashion or status, drive awareness of themselves whenever they are used.
11. **Auditable Metrics:** Ensure that the data is credible to employees
12. **Blame:** Most senior people in the room should repeat this mantra: if a mistake happens, shame on us for making it so easy to make that mistake.
13. **Build-measure-learn feedback loop:** Instead of making a lot of assumptions, you can make constant adjustments with a steering wheel called build-measure-learn. Through this process we can learn if and when to make a sharp turn - a pivot
14. **Build-Measure-Learn really works in the reverse order:** Figure out what we need to learn and then work backwards to see what product will work as an experiment to get that learning.
15. **Business Architecture Pivot:** Startup goes from high margin/low volume to mass market or vise versa.
16. **Channel Pivot:** Is the recognition that the same basic solution could be delivered through a different channel with greater effectiveness.
17. **Choosing Engine of Growth:** It can direct energy where it will be most effective in growing the business. Requires a focus on unique metrics to evaluate the success of new products and prioritize new experiments
18. **Cohort Analysis:** Instead of looking at cumulative totals or gross numbers such as total revenue or total number of customers, one looks at the performance of each group customers that comes into contact with the product independently.
19. **Common with Pivots:** It's not necessary to throw out everything that came before and start over. Instead, it's about repurposing what has been built and what has been learned to find a more positive direction.
20. **The concierge MVP:** A personalized service is not the product but a learning activity designed to test the leap of faith assumptions to the company's growth model.
21. **Constant feedback:** Bring continually in people to react to mockups, prototypes and simulations.
22. **Culture and systems:** It's moving leaders from playing Caesar with their thumbs up and down on every idea to - instead - putting in a culture and the systems so that teams can move and innovate at the speed of the experimentation system.
23. **Customer Archetype:** Early contact with the customer clarifies a basic coarse level that we can use to craft - a brief document that seeks to humanize the proposed target customer.
24. **Customer Need Pivot:** The product hypothesis is partially confirmed: The target customer has a problem worth solving, just not the one that was originally anticipated.
25. **Customer Segment Pivot:** The product hypothesis is partially confirmed, solving the right problem, but for a different customer than originally anticipated.
26. **Early adopters:** These people are a special breed of customer. They use their imagination to fill in what a product is missing. They prefer that state of affairs because they care about above all is being the first to use or adopt a new product or technology. They are suspicious of something that is too polished.
27. **Engine of Growth Pivot:** A company changes its growth strategy to seek faster or more profitable growth.
28. **Engines of Growth:** Sources of sustainable growth power feedback loops. The fast the loop turns, the faster the company will grow. They are designed to give startups a relatively small set of metrics on which to focus their energies.
29. **Experiment Early:** As soon as a hypothesis is something they want to test, the product development team should be engineered to design and run this experiment as quickly as possible, using the smallest batch size that will get the job done.

30. **The Experiment Phase:** Begins with a clear hypothesis that makes predictions about what is supposed to happen. Startup experimentation is guided by the startups vision. The goal of every startup experiment is to discover how to build a sustainable business around that vision. Even when experiments produce a negative result, those failures prove instructive and can influence strategy. In the lean startup model, an experiment is more than just a theoretical inquiry; it's also a first product.
31. **External Customer Data:** The facts that we need to gather about customer exist only outside the building
32. **Fares user stories:** Instead of writing a specification for a new feature that described it in technical terms, he would write a story that described the feature form the point of view of the customer
33. **Fast production change:** Assembly lines are set up to allow each new product that comes off the line to be customized completely without sacrificing quality or cost-effectiveness.
34. **From Early Adopters to Mainstream:** The rationale for building low-quality MVPs is that developing any features beyond what early adopters require is a form of waste. They have different requirements and are much more demanding.
35. **Genchi Gembutsu:** "Go and see for yourself."=business should be based on deep firsthand knowledge. Until you have seen something for yourself firsthand, you can't be sure you really understand any part of the business problem.
36. **The Growth Hypothesis:** Test how new customers will discover a product or service.
37. **Hardware Becoming Software:** What can be built out of software can be modified much faster than a physical or mechanical device can.
38. **The heart of the Lean Startup:** A pivot is not just an exhortation to change. It is a special kind of structured change designed to test a new fundamental hypothesis about the product, business model and engine of growth.
39. **High-quality experiences:** For customers as a primary principle. This presupposes that the company knows what attributes of the product the customer will perceive as worthwhile. This is a risky assumption in a startup. If we don't know who the customer is, we don't know what quality is.
40. **The Importance of Innovation Accounting:** Product prioritizing decisions, deciding which customers to target or listen to, and having the courage to subject a grand vision to constant testing and feedback
41. **Innovation Accounting:** An alternative to traditional accounting designed specially for startups, and begins by turning the leap-of-faith assumptions into a quantified financial model.
    1. Use a MVP to establish real data on where the company is right now.
    2. Startups must attempt to tune the engine from the baseline toward the ideal.
    3. After the startup has made all the micro changes and product optimizations it can move its baseline toward the ideal, the company reaches a decision point: pivot or preserve. Framework makes it clear when the company is stuck and needs change direction
42. **Innovation factory:** A company's only sustainable path to long-term economic growth is to build an 'innovation factory' that uses lean startup techniques to create disruptive innovations on a continuous basis.
43. **Just-In-Time:** Reduces the need for in-process inventory
44. **The Land of the Living Dead:** Happens when a company has achieved a modicum of success but is not living up to the expectations of its founders and investors. Neither growing or dying.
45. **Large-Batch Death Spiral:** Moving the batch forward often results in additional work, rework, delays, and interruptions, everyone has an incentive to do work in ever-larger batches, trying to minimize this overhead
46. **Large Batches:** The work that goes into the development of a new product proceeds on a virtual assembly line.
47. **Lean thinking:** Defines value as providing benefit to the customer, anything else is waste. In a manufacturing business, customers don't care how the product is assembled, only that it works correctly. But in a startup, who the customer is and what the customer might find valuable are unknown, part of the very uncertainty that is an essential part of the definition of a startup.
48. **Lean thinking(thought process):** drawing on the knowledge and creativity of individual workers, shrinking batch sizes, just-in-time production and inventory control, acceleration of cycle times.
49. **Leap-of-faith Assumptions:** The riskiest elements of a startup plan. Two most important are value hypothesis and the growth hypothesis. MAKE OR BREAK YOUR BUSINESS.
50. **Learning Milestone:** An MVP allows a startup to fill in real baseline data in it growth model - conversion rates. Sign up and trial rates, customer life value etc. - and this is valuable as the foundation for learning about customers and their reactions to product even f that foundation begins with extremely bad news.
51. **Learning Milestones:** Alternative to traditional business and product milestones. Learning milestones are useful for entrepreneurs as a way of assessing their progress accurately and objectively.

52. **Learning Milestones Goal:** The goal of creating this is not to make the decision easy; it is to make sure that there is relevant data in the room when it comes time to decide
53. **Minimizing the Total Time:** Many people have training that emphasizes one element of the feedback loop. But having the best business idea or the best designed product isn't enough; we need to focus our energies on minimizing the total time through this feedback loop.
54. **Minimum Viable Product:** Once clear on the leap-of-faith decisions, the first step is to enter the build phase as quickly as possible with a minimum viable product - MVP. The MVP is that version of that product that enables a full turn of the build-measure-learn loop with a minimum amount of effort and the least amount of development time.
55. **MVP definition(Minimum Viable Product):** Helps entrepreneurs start the process of learning as quickly as possible. It's the fastest way to get through the build-measure-learn feedback loop with the minimum amount of effort. It's designed not just to answer product design or technical questions. The goal is to test fundamental business hypotheses. The first step on a journey of leaning.
56. **MVP rule:** Remove any feature, process or effort that doesn't contribute directly to the learning you seek.
57. **The myth of the loss of manufacturing capabilities:** The huge productivity increases made possible by modern mismanagement and technology have create more productivity capacity than firms know what to do with. More output=less jobs.
58. **One of the Most Important Discoveries of the Lean Manufacturing Movement:** Can't trade quality for time. If you are causing or missing quality problems now the result defects will slow you down later.
59. **The Paid Engine of Growth:** Each customer pays a certain amount of money for the product over his or her lifetime as a customer.
60. **Pattern for making a pivot or preserve:** Poor quantitative results force us to declare failure and create the motivation, context, and space for more qualitative research. Theses investigations produce new ideas - new hypotheses - to be tested, leading to a possible ___. They unlock new opportunities for further experimentation and the cycle repeats. Each time we repeat this simple rhythm: establish the baseline, tune the engine, and make a decision to pivot or preserve.
61. **Pivot(definition):** A structured course correction designed to test a new fundamental hypothesis about the product, strategy and engine of growth. It requires that we keep one foot rooted in what we have learned so far, while making a fundamental change in strategy in order to seek even greater validated learning.
62. **Pivot or preserve:** It starts the process all over again, establishing a new baseline and then tuning the engine from there. Sign of being it successful: engine-tuning activities are more productive after the pivot than before.
63. **Pivot sooner than Later:** Ask most entrepreneurs who have decided to do this and they will tell you that they wish they had made the decision sooner.
64. **Platform Pivot:** Refers to a change from an application to a platform or vice versa
65. **Productivity:** When people are used to evaluating their productivity locally, they feel that a good day is one in which they did their job well all day. The lean startup asks people to figure out the right thing to build - the thing customers want and will pay for - as quickly as possible.
66. **Product/Market Fit:** Describes the moment when a startup finally finds a widespread set of customers that resonate with its product.
67. **Progress measure:** Instead of measuring progress in manufacturing by the production of high-quality physical goods, the lean startup measure progress through validated learning.
68. **The Runaway:** The true measure of this is how many pivots a startup has left: the # of opportunities it has to make a fundamental change to its business strategy.
69. **School of One:** Students have daily playlists of their learning tasks that attuned to each student's earning needs.
70. **The sign of a successful pivot:** The new experiments you run are overall more productive than the experiments you were running before
71. **Single-Piece Flow:** Batch size of one.
72. **Small Batches:** Quality problems can be identified much sooner. Ensures that a startup can minimize the expenditure of time, money and effort that ultimately turn out to have been wasted.
73. **Split Test Benefits:** Save tremendous amount of time in the long run by eliminating work that doesn't matter to customers. Helps teams refine their understanding of what customers want and don't want.
74. **Startup Strategy:** Role of strategy is to help figure out the right questions to ask. Build an organization that can test theses assumptions systematically. Perform that rigorous testing without losing sight of the company's overall vision.
75. **A Starup's Job:** 1. Rigorously measure where it is right now, confronting the hard truths that assessment reveals and then... 2. Device experiments to learn how to move the real numbers closer to the ideal reflected in the business plan
76. **The Sticky Engine of Growth:** Track their attrition/churn rate very carefully. Churn rate is the fraction of customers in any period who fail to remain engaged with the company's product. Rules: If the rate of new cuter acquisition exceeds the churn rate, the product will grow. The speed of growth is determined by what the churn rate compounding, which is simply the natural growth rate minus churn rate.
77. **Structures:** Startups need organizational this to combat the extreme uncertainty that is a startups chief enemy.
78. **Sustainable AND Disruptive:** Companies must learn to master these 2 concepts

79. **Technology Pivot:** Discovering a technology to achieve the same solution by using a completely different technology.
80. **Through funded Advertising:** Cost of acquiring a new customer is less than he revenue that customers generates the excess can be used to acquire more customers.
81. **Through Repeat Purchase or Use:** Subscriptions or Voluntary Repurchases
82. **Toyotas Andon Chord:** An assembly line works best when it is functioning smoothly, rolling car off the end of the line. Can interrupt this careful flow as the line is halted repeatedly.
83. **Toyota's Small Batches:** Used smaller general-purpose machines that could produce a wide variety of parts in small batches. It required figuring out ways to reconfigure each machine rapidly to make the right part at the right time. Created a greater Diversity of products.
84. **True Startup Productivity:** Systematically figuring out the right things to build. In the lean startup, every product, every feature, every marketing campaign - everything a startup does - s understood to be an experiment designed to achieve validated learning.
85. **Tuning the engine:** Every product development, marketing other initiative that a startup undertakes should be targeted at improving one of the drivers of it growth models.
86. **Validated Learning:** Not after-the-fact rationalization or a good story designed to hide failure. It is a rigorous method for demonstrating progress when one is embedded in the soil of extreme uncertainty in which startups grow. It's the process of demonstrating empirically that a team has discovered valuable truths about a startups present and future business prospects. It is more concrete, more accurate and faster than market forecasting or classical business planning. It is always demonstrated by positive improvements in startups core metrics. It's backed up by empirical data collected from real customers.
87. **Value Capture Pivot:** How do companies capture it?
88. **The Value Hypothesis:** Test whether a product or service really delivers value to customers once using it.
89. **Value in a Startup:** Not the creation of stuff, but rather validated learning about how to build a sustainable business.
90. **Vanity Metrics Prevents Pivoting:** Allows entrepreneurs to form false conclusions and live in their own private reality. When an entrepreneur has an unclear hypothesis, it's almost impossible to experience complete failure, and without failure there is usually no impetus to embark on the radical change it requires.
91. **The Viral Engine of Growth:** Products that exhibit this growth depends on person-to-person transmission as a necessary consequence of normal product use.
92. **The Viral Loop:** It's speed determined by a single Mathematical term called the viral coefficient. The higher the coefficient is, the faster the product spreads. Measure how many new customers will use a product as a consequence of each new customer who signs up. Greater than 1 will grow.
93. **We must always ask:** What if the user doesn't care about the design in the same way we do? We must be willing to set aside our traditional professional standards to start the process of validated learning as soon as possible. The only way to win is to learn faster than anyone else
94. **Wizard of Oz testing:** Customers believe they are interacting with the actual product, but behind the scenes human beings are doing the world.
95. **Word of Mouth:** Embedded in most products is a natural level of growth that is caused by satisfied customer's enthusiasm for the products
96. **Zoom-in Pivot:** Preciously was considered a single feature in a product becomes the whole product.
97. **Zoom-out Pivot:** What was considered as the whole product becomes a single feature of a much larger product.