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Creative 3D Technologies: Designing and Producing All-In-One Innovative 3D Printers



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CEOCFO: *Mr. Baehrend, would you tell us about the concept behind Creative 3D Technologies?*

Mr. Baehrend: Creative 3D Technologies designs and produces innovative 3D printers that encapsulate the capabilities of multiple specialized printers into one, creating an all-in-one solution.

CEOCFO: *For someone that is not very familiar, would you explain what that means?*

Mr. Baehrend: That means that we take jobs of potentially six or more 3D printers where typically you would need to buy specialized printers, so if you want large parts, you needed to buy a printer that only prints large parts, or if you want details or metals, batch production of parts, high temperature materials, you need separate printers for each. We are one of the only companies to merge more than one of those into one printer, making an effective all-in-one solution for any 3D printing need, which opens up quite a few possibilities by merging printing styles as well.

CEOCFO: *What is the challenge in putting the technology together?*

Mr. Baehrend: It is quite tough because if anybody wants to create a 3D printer, there are problems to solve. If you want for example back to the large printer, you need to overcome a set of problems to make it an effective large printer. There is a whole set of problems to make a great product for a large printer. If you want a detail printer, you need another whole set of problems and whole set of different parts and technology to make it perform well as a detail printer. When you combine these two for example, you have both sets of problems and both sets of hardware that you need to combine into one machine, and new problems that arise from merging the two, like a large pyramid that grows by adding more features.

The more types of functions you add to 3D printers the greater the design / innovation problem becomes, so that it eventually costs way too much money to try to develop it from an outside perspective, or you need a company that approaches the problem pile completely differently and that is where we come in.

CEOCFO: *How do you approach it?*

Mr. Baehrend: We have completely change how we produce printers. We intend to fully produce them in-house with custom manufacturing tools and utilizing a lot of the geometries that only 3D printing can produce. I feel that this is

underutilized and having parts that are dependent on those types of geometries and having great hardware partners behind us for different key parts helped us combine different printing formats.

CEO CFO: *Where are you today?*

Mr. Baehrend: We have been trying to make this for well over three years now and we have moved the company down from Chicago to Austin Texas and we are moving to in-house production. We have directly tested the market, had a wonderful response, which is re-affirming after all those years of development, and now we are just getting ready to produce and finally get it in those people's hands that want it.

CEO CFO: *Do you see any concerns with potential users that if you have too many bells and whistles on a piece of equipment, it is more challenging and my not be as effective for any specific use?*

Mr. Baehrend: That is a concern that has come up before because a lot of people think, 'well you have all these dedicated tools, so maybe your products are like a Swiss Army knife that may not be the most effective tool for what each application encompasses.' That is completely fair to question when something such as this is completely new, but I personally believe that part of the reason no one has done this is how to market structure and not technological limits.

"Creative 3D Technologies is a fresh look at everything within that industry down to how we make the most simple parts, to how we test our printers, to the technology in the printers themselves and their immense capabilities. Not only that but our combining of 3D printing methods is just our beginning, Creative 3D Technologies has a lot more disruptive to still unleash to market." Ethan Baehrend

There are few companies making a specific type of printer for each tier customer. If you want a large printer that only prints larger parts for an industrial customer, there are few companies that make that printer, leaving the manufacturers in a nice niche with less competition. Which is another reason for the market structure, why innovate when you may be happy slowly releasing features and innovations. An all-in-one solution is something that is hard to understand unless you see it or encounter physically, which is why I try to push our presence and allow potential customers to be hands-on with our printer at tradeshow, to see how it integrates features because this is not something that is less effective for combining those capabilities but actually the opposite.

We improve upon the technology, if you only want a single printing style for say large parts, we will print them faster and stronger than our competition, or if you want something large like the size of a table with the precision of a face of a coin, which is currently pretty impossible in the current market, combining size and precision printing, that is something we can still achieve with equal reliability.

CEO CFO: *What is your strategy without tradeshow at the moment?*

Mr. Baehrend: We are still pre-production. We are currently raising funds to get to that production point. At tradeshow, trying to display whatever features we can to that potential audience was one of our big strategies. We had to test if there was even a market for our products in the first place, which is partially why we are still at those tradeshow displaying in the first place. We were on track to roll out and begin production earlier this year but with 2020 hitting pretty hard with a lot of different issues, it had us set back and take time on the product to make ensure it is perfect and redesign the business model so we can still be effective even if we need to produce say forty printers a year and still be sustainable with a smaller team. We are playing for every outcome but right now we are trying to do our best to get product out to that market that was waiting.

CEO CFO: *Is 3D printing of interest to the investment community in general?*

Mr. Baehrend: It is a little bit tough because it is hard to find specific 3D printing investors. A lot of times there will be random VCs or angel investors that don't exactly have a track record in 3D printing that decide to give it a shot, because it is a somewhat new market in the sense of venture capital.

I believe 3D printing should still be of interest to investors because looking at the marketplace it has extremely high growth coming up. In 2018 the entire marketplace was worth about \$13 billion and within the next few years by 2025 it is estimated that it will be worth \$63 billion which is immense growth. It's because the Asian marketplace is starting to adapt to the new climate that 3D printing is introducing and they are going to be one of the largest consumers of it soon.

With unprecedented growth like that, you need new solutions and I think we fit in at a perfect time to get started to be ready for that new growth.

CEOCFO: *How are you reaching out to investors along with potential users?*

Mr. Baehrend: Mostly through a lot of networking and trying to connect in the Austin Texas startup scene, as we are pretty new here and a lot of those direct one-to-one contacts are key, you never know who might invest and that is partially why we ended up opening an investment round to the public. There are a lot of contacts that I have that are not necessarily accredited venture capitalists but would love to take part in the company at an early stage. That is exactly what opening a round like this to the public will allow us to do, while potentially still getting those same accredited investors in on the rounds as well. It is a little bit of a different approach to raising funding.

CEOCFO: *Do you have a sense of who might be the best prospects for purchasing and using the product?*

Mr. Baehrend: The Duo was designed to try to reach the largest market possible. It is perfect for what I consider the middle market, the sub \$50,000 small to medium businesses which are doing larger prototyping or production with 3D printers, as it is cost-effective enough to potentially replace a lot of the exporting of that same prototyping process while being plenty efficient and powerful to meet those same demands without off-loading it.

I still believe it is perfect for the whole market in general because it is right at the top end of the consumer/ hobbyist side of the market which I believe the sub \$10,000 price point, which already has a lot of startups as well, but it is still capable enough to compete with 3D printers that are in the much more industrial sector since it has a lot of those same features and capabilities that have been improved upon.

CEOCFO: *What is involved with maintenance/servicing of the machines?*

Mr. Baehrend: Maintenance has been pretty hands-off. There is one part that is interchangeable, which is the build platform, which is what all the pieces are built off of, and it slides easily off for people to be able to bend and just pop the parts off. Which is great as most printers use adhesives and different consumables to adhere parts, this eliminates that. With hundreds of prints, you do want to replace that plate which is inexpensive, less than one hundred dollars to replace the entire plate and it will be good for hundreds and hundreds of prints again, which in total is a lot less expensive than that equal number in consumables of adhesive glues and things like that.

We have had Duos running for over two years now, printing thousands of prints, and at this point, running for thousands of hours and have not needed to replace any large key components which is a great statement of its reliability.

CEOCFO: *What did you learn about manufacturing as you explored the ways to do that in-house? What might have surprised you in that arena?*

Mr. Baehrend: I've learned quite a bit because I am one of the youngest, if not the youngest, founder in the entire industry at currently nineteen years old, which had me working 130 hours, working Everyman cycle; sleeping four hours with small increment of naps, during high school, trying to manage this company, then doing college studies simultaneously. I learned quite a bit and that is why I came up with a different approach to manufacturing these products, because though it might initially be a bit more expensive for us, it does give us a lot of benefits in the immediate future going in-house, instead of partnering with for example, an Asian manufacturing partner which turns out to be more expensive in the end. So I learned to take new perspectives, utilize current tools, and make them work for me in an efficient manner.

In regard to surprises, following on my last point, I've most been surprised with the price of conventional manufacturing hardware, it's less obtainable than I thought and its price is thus our greatest barrier to entry.

CEOCFO: *Does the fact that you are nineteen years old intrigue potential investors and buyers? Do you find that is a plus?*

Mr. Baehrend: Sometimes. It has honestly been a flip of a coin because if you can be listened to enough or they are open enough to try to listen to you, not dismissing you as being young and naïve, then you can see that though I am young I am still in industry veteran. I have had this business for going on four years and previously I had a business refurbishing 3D printers that ran for over five. I have been inside quite literally hundreds of 3D printers from the hundred dollar price-point to hundred thousand dollar point. I know every single part and feature inside them and have seen the

rise and fall of businesses for over five years. Usually if a potential investor can let me get that point out, they realize I'm wiser than my years and indeed do know what I am saying.

If someone sees the proof through the capabilities in what I have made, as the functioning product is literally right there, then that also lends to my credibility quite a bit. But as mentioned, with my age you can immediately be dismissed saying oh well he is young, what would he know. It is a flip of a coin because sometimes people think 'oh well let me get in on the youngest and most exciting thing' and be a part of something that is adventurous, an opposite opinion to the last perspective. I have heard at tradeshow that I have managed to create something that they personally have been trying to design for years. They'll be an industry veteran as well, who's working on trying to make a printer like this for years on end, that I cracked the code to create by doing it a different way. Youth doesn't equal lack of experience or potential.

CEO CFO: *Why take a look at Creative 3D Technologies?*

Mr. Baehrend: We are a fresh perspective on the industry. The model has not changed much in the past few years and I believe the innovation has been stunted. Creative 3D Technologies is a fresh look at everything within that industry down to how we make the most simple parts, to how we test our printers, to the technology in the printers themselves and their immense capabilities. Not only that but our combining of 3D printing methods is just our beginning, Creative 3D Technologies has a lot more disruptive to still unleash to market. This is our simple wave hello, and if some find that to be amazing, then wait until they see what else we have.