

TINKERINE STUDIOS LTD.

MANAGEMENT DISCUSSION AND ANALYSIS

For the six months ended June 30, 2019



Ditto™ Pro 3D Printer & Tinkerine U online 3D content

MANAGEMENT DISCUSSION AND ANALYSIS

FOR

Tinkerine Studios Ltd. (“the Company”)

Financial Highlights

	Six Months Ended June 30 2019	Six Months Ended June 30 2018	Q2 Ended June 30 2019	Q2 Ended June 30 2018	Q1 Ended Mar 31 2019	Q1 Ended Mar 31 2018
Revenue	\$ 267,062	\$ 312,161	\$ 215,200	\$ 158,320	\$ 51,862	\$ 153,841
Cost of Goods Sold	129,208	173,084	88,215	78,089	40,993	94,995
Gross Margin	137,855	139,077	126,986	80,231	10,869	58,846
EBITDA	(128,603)	(162,889)	(17,884)	(61,571)	(110,719)	(101,319)
Net Income (Loss)	(138,510)	(192,732)	(21,188)	(77,876)	(117,322)	(114,859)
Net Comprehensive Income (Loss)	(138,510)	(192,732)	(21,188)	(77,876)	(117,322)	(114,859)
Basic and Diluted income(loss) per share	0.00	0.00	0.00	0.00	0.00	0.00
Weighted average number of common shares						
Basic and Diluted	49,238,349	49,238,349	49,238,349	49,238,349	49,238,349	49,238,349

Management’s Discussion and Analysis of the Financial Position and Results of Operations

August 23, 2019

The following discussion and analysis regarding the financial position and results of operations provides information of the operations and financial results of Tinkerine Studios Ltd. (“the Company”) that the management believes is relevant for the review, assessment and understanding the Company’s unaudited condensed consolidated interim financial statements for the six months ended June 30, 2019. The Management’s Discussion and Analysis (MD&A) should be read in conjunction with the unaudited consolidated interim financial statements. Readers may want to refer to the December 31, 2018 audited financial statements and the accompanying notes which are available at www.sedar.com.

Background and Description of the Business

Tinkerine Studios Ltd is one of Canada’s largest developer, producer and distributor of 3D printers, with its innovative software platform that is supported through TinkerineU, the online educational support and content portal.

Tinkerine designs, manufactures and distributes 3D printers in Canada, USA and the APAC region. The Company’s product offering is the Ditto Pro and Ditto Pro R that are well priced in each segment of the market and are gaining a reputation for quality 3D printers and innovative, high quality educational support. In addition, the Company sells high grade filament for its printers

The financial information in this MD&A is based on the Company’s unaudited consolidated interim financial statements which have been prepared in Canadian dollars, in accordance with International Financial Reporting Standard (“IFRS”).

Non-IFRS Measures

The accompanying unaudited interim condensed consolidated financial statements have been prepared in accordance with International Financial Reporting Standards (IFRS) and International Accounting Standard 34 – *Interim Financial Reporting*, in Canadian dollars. Certain supplementary information and measures not recognized under IFRS are also provided in this MD&A where management believes they assist the reader in understanding Tinkerine’s results. These measures are calculated by Tinkerine on a consistent basis unless otherwise specifically explained. These measures are further explained as follows:

EBITDA – EBITDA and EBITDA margin means net earnings or losses before interest, taxes, depreciation, amortization, foreign exchange gains and losses and stock-based compensation. EBITDA and EBITDA margins are not recognized as measures under IFRS and do not have a standardized meaning prescribed by IFRS and therefore may not be comparable to similar measures reported by other corporations. Management believes that this metric assists in determining the ability of the Corporation to generate cash from operations and is calculated on a consistent basis.

Cash flow from operations – means cash flow from operations before changes in non-cash operating working capital. This measure is not intended to be an alternative to cash provided by operating activities as provided in the consolidated statements of cash flows, comprehensive income or other measures of financial performance calculated in accordance with IFRS. Cash flow from operations assists management and investors in analyzing operating performance and leverage.

Q2 2019 Overview and Highlights

The Company's principal business is the design, manufacture and distribution of 3D printers, software and related online educational content. It is also the exclusive supplier of the filament that is used in the printer

- Q2 2019 revenue is \$215,200 for the second 3 months of the year, versus Q2 2018 revenue of \$158,320, an improvement in revenue of 36% or \$56,880 compared to a year ago. The Q2 2019 revenue was the result of improved sales in the K-12 school education channel in Canada compared to last years' revenue in this channel. This sector historically represents a significant portion of the company's business in this quarter.
- Revenue for the first 6 months ended June 30, 2019 is \$267,062, down by 14% compared to revenue of \$312,161 for the six months ended June 30, 2018. In comparing the revenue for the first six months, the Canadian market improved year over year but the overall lower sales in Q1 of this year impacted the year to date sales in the first 6 months.
- Geographic segmented revenue for the first six months of 2019 derived by area was Canada – \$183,751 and United States – \$83,311 versus geographic segmented sales in the first 6 months in 2018 of Canada – \$168,183, United States – \$135,135 and Other – \$8,843. Canadian sales improved by 9.3% due to the bounce back of sales in the school channel. However, comparing our 2019 United States revenue to last year we see a difference of 38% lower revenue year to date. We are expecting this market to improve in the third quarter. Tinkerine's education courses have been expanded from K-12, to the college and tertiary education market.
- The Company utilizes its Tinkerine U portal to offer its 3D courses and 3D certification, that has been made available on-line for educators, students and professionals. In addition, the Company has used this portal for a large part of their sales and marketing initiatives. The Company's strategic focus is to build, expand and strengthen the demand for our Ditto™ Pro 3D printers with primary focus on the education market. In the second quarter the Company launched their new 3D printer the Ditto Pro R with enhanced printer features including WIFI capability.

Q2 2019 EBITDA, earnings/loss before interest, taxes, depreciation, amortization, foreign exchange gains and losses and stock-based compensation improved by \$43,685 to a deficit of \$17,884 in Q2 2019 compared to a deficit of \$61,569 in Q2 2018. EBITDA is a metric used to assess the financial performance of an entity and is a non - IFRS measure, and is calculated by Tinkerine on a consistent basis and may not be comparable to other companies.

The Company's net loss for Q2 2019 decreased to a net loss of \$21,188 compared to the net loss of \$77,874 in Q2 2018, an improvement of \$56,686. This improvement is attributable to the combination of higher sales in our Canadian market, and improved gross margin for Q2. Our total cash expenses are higher by \$6,780 at \$146,979 in Q2 2019 versus \$140,199 in Q2 2018.

Summary of Quarterly Information

	Quarter ended:			
	"Q2 2019"	"Q1 2019"	"Q4 2018"	"Q3 2018"
	June 30 2019	March 31 2019	December 31 2018	September 30 2018
Revenue	\$215,200	\$51,862	\$151,170	\$88,991
Net Income (Loss)	(\$21,188)	(\$117,322)	(\$92,124)	(\$104,420)
Net Comprehensive Income (Loss)	(\$21,188)	(\$117,322)	(\$92,124)	(\$104,420)
Basic and Diluted Loss per share	(\$0)	(\$0)	(\$0)	(\$0)
Number of shares outstanding (w. avg.)	49,238,349	49,238,349	49,238,349	49,238,349
	Quarter ended:			
	"Q2 2018"	"Q1 2018"	"Q4 2017"	"Q3 2017"
	June 30 2018	March 31 2018	December 31 2017	September 30, 2017
Revenue	\$158,320	\$153,841	\$168,022	\$203,489
Net Income (Loss)	(\$77,874)	(\$114,857)	(\$176,677)	(\$31,159)
Net Comprehensive Income (Loss)	(\$77,874)	(\$114,857)	(\$176,677)	(\$31,159)
Basic and Diluted Loss per share	(\$0)	(\$0)	(\$0)	(\$0)
Number of shares outstanding (w. avg.)	49,238,349	49,238,349	49,238,349	49,238,349

Q2 2019 Financial Highlights

- **Sales revenue increased by 36% to \$215,200 in Q2 2019 from \$158,320 in Q2 2018**
- **Expenses decreased by 6% to \$148,174 in Q2 2019 from \$158,105 in Q2 2018.**
- **EBITDA improved to a deficit of \$17,884 in Q2 2019 compared to a deficit of \$61,569 in Q2 2018.**
- **Working capital was a deficit of \$345,211 in Q2 2019 versus deficit of \$18,205 in Q2 2018.**
- **A net cash position of \$45,332 from Operating Activities in Q2 2019 versus Net Cash deficit position of \$55,643 in Q2 2018**

Detailed Discussion and Analysis of Operating Results for the Periods Ended June 30 2019 and June 30 2018

1. Revenue

Revenue for Q2 2019 was \$215,200 for the three months ended June 30, 2019 versus \$158,320 for the comparative period Q2 2018, an increase of 36% in revenue year over year. For the six months period ended June 30, 2019, the revenue was \$267,062 versus \$312,161 in 2018, a decrease of 14% year to date, due primarily to the weaker first quarter

For Q2 2019, revenue was represented by 92% hardware sales, 5% filament and 3% services/miscellaneous. Comparatively revenue for Q2 2018 was represented by 55% hardware sales, 39% filament and 7% services/miscellaneous. The Q2 2019 revenue by product is the historical revenue breakdown by product as opposed to the change we saw in the 2018 sales revenue by product where hardware sales were lower and filament sales higher as a percentage of the total revenue. This was due to distributors restocking their filament inventory in Q2 2018 and which skewed the revenue by product percentages for that period.

The number of 3D printers sold in Q2 2019 was 104 3D printers compared to 42 3D printers sold in the second quarter of 2018

Filament Revenue for Q2 2019 is \$10,630 compared to \$61,057 in Q2 2018. The Q2 2019 filament revenue generated is typical of the level and percentage that we expect, as opposed to the Q2 2018 increase in total filament revenue and percentage, as explained earlier in this discussion.

2. Gross Profit Margins

Gross profit for the three months ended June 30, 2019 was \$126,985 or 59% gross margin, an improvement of 58% in the gross profit versus \$80,231 or 51% gross margin for the three months ended June 30, 2018. This improvement in gross profit can be attributable to lower discounts to schools and better prices for parts thus reducing our cost of goods in Q2 2019. Gross profit margin for the six months ended June 30, 2019 is lower at \$137,855 or 52% versus \$139,077 or 45% in 2018, with the stronger gross margin in Q2 2019 positively impacting the six month results.

3. Expenses

In Q2 2019 the Company incurred \$148,174 of total expenses compared to \$158,105 in Q2 2018, a decrease of \$9,931 in total expenses. For the six months ended June 30, 2019 total expenses were \$276,365 versus \$331,810 for the six months ended June 30, 2018, a decrease in total expenses of \$55,445. The Company's RTO occurred in April 2014 and expenditures prior to that time were more limited. The Company continues to manage its controllable expenses and the total cash expenses was \$146,979 in Q2 2019 versus \$140,201 in Q2 2018, an increase of \$6,778, due to lower non-cash expenses booked in Q2. For the six months ended June 30, 2019 total cash expenses were \$271,621 versus \$294,414 for the six months ended June 30, 2018 a decrease of \$22,793. We continue to review departmental budgets and corporate spending in all areas and these are further discussed below.

Highlighted quarterly expenses include the following:

- Remuneration and benefits increased by \$532 to \$71,530 for Q2 2019 versus \$70,998 for Q2 2018. For the six months ended June 30, 2019 remuneration and benefits was higher by \$2,499 at \$143,605 versus \$141,106 for the six months ended June 30, 2018.
- There was no stock based compensation expense in Q2 2019. There was a reversal of \$211,505 from share options reserves to deficit for share options that had expired and were cancelled. Stock based compensation expense was \$2,149 in Q2 2018 before the reversal of \$13,175 for share options that were cancelled. For the six months ended June 30, 2019 there were no stock based compensation and there was a reversal of \$211,505 from share options reserve to deficit for share options that had expired and were cancelled. For the six months ended June 30, 2018 stock-based compensation was \$5,890 before the reversal of \$13,175 for share options cancelled. This is a non-cash expense and represents the fair value of stock options granted and outstanding using the Black Scholes calculation. Under IFRS, the expense is recognized as the options vest each quarter with a larger proportion of the expense recognized in earlier quarters. There were no stock options issued in the first 6 months of fiscal 2019 & 2018.
- Professional and consulting fees were \$32,005 for Q2 2019 versus \$33,649 in Q2 2018. For the six months ended June 30, 2019 professional and consulting fees was \$48,545 versus \$89,615 for the six months ended June 30, 2018. Included in the 2018 professional and consulting expense was sales and marketing consulting services of \$33,091 provided by a director and related party of the Company.
- Research and development expenses for Q2 2019 was \$6,900 versus \$249 in Q2 of 2018. The increase of \$6,651 was the result of expenses incurred in the development of Tinkerine's latest model 3D printer, the newly launched Ditto Pro R. For the six months ended June 30, 2019 the research and development expense was \$6,921 versus \$441 for the six months ended June 30, 2018.

LIQUIDITY

As at June 30, 2019, the Company had net working capital deficit of \$345,211 compared to a net working capital deficit of \$211,444 at December 31, 2018. Our cash position was \$133,217 at the end of Q2 2019 compared to \$87,885 at December 31, 2018.

In Q2 2019 the Company's investment in inventory was \$132,823 with finished goods at \$10,443 and raw materials \$122,380, compared to inventory total of \$174,383 with finished goods of \$23,675 and raw materials of \$150,708 at December 31, 2018. Prepaid and Deposits were \$40,125 as at June 30, 2019 versus \$7,042 in December 31, 2018 and these payments are related to prepayment of overseas parts purchases.

At the time of release of this MD&A management believes the Company is presently in a position that may require additional equity investment over the coming months. While our cash position is somewhat tight we believe we have managed our existing operations with the existing working capital. Any further downturn in sales or, alternatively, pursuit of a more aggressive growth strategy would necessitate further equity investment.

CAPITAL RESOURCES

As at June 30, 2019, the Company's share capital was \$4,329,369 representing 49,238,349 issued and outstanding common shares without par value. There were no share transactions for the first six months of 2019 and 2018 fiscal years. Reserves, representing the fair value of stock options outstanding and vested and warrants issued, is recorded at \$104,617. The net decrease in reserves during the first six months of 2019 is the reversal of \$211,505 from the reserve account to deficit due to the cancellation of stock options that had expired.

As at June 30, 2019 the Company has 2,360,000 stock options outstanding with a weighted average exercise price of \$0.075 and an average remaining term of 2.09 years. There were no warrants outstanding at June 30, 2019 and June 30, 2018. Warrants of 6,600,000 at \$0.10 expired in March 2018.

The Company has no debt facilities and no off-balance sheet arrangements.

OUTSTANDING SHARE INFORMATION

The Company's authorized capital is unlimited common shares without par value. As at August 23, 2019, the following common shares, options and share purchase warrants were outstanding:

As at August 23, 2019	Number of Issued and outstanding
Common Shares	49,238,349
Stock Options	2,360,000
Warrants ¹	-
	<u>51,598,349</u>

TRANSACTIONS WITH RELATED PARTIES

Included in trade payables at June 30, 2019 are amounts due in the normal course of business to officers and directors that are related parties as follows; total amount due is \$20,526, Justin Sy – \$62, Eugene Suyu - \$4,464, Bob Longo - \$16,000, (December 31, 2018 - \$17,195; Eugene Suyu - \$1,195, Bob Longo - \$16,000). Balances due to related parties are unsecured, non-interest bearing and have no fixed terms of repayment

Key management personnel compensation

During the six months ended June 30, 2019, the officers of the Company were paid salaries or independent contractor fees as follows: Eugene Suyu, CEO, \$30,000 (2018 -\$30,000); Justin Sy CFO, \$22,500 (2018 - \$22,500). During the first six months ended June 30, 2019 there were no stock-based compensation paid to directors. Stock based compensation is attributable to options held by directors and officers and \$4,671 was paid in the six months ended June 30, 2018.

Officers and directors

The following individuals were re-elected to director at the June 28, 2018 AGM and continue to the date of this MD&A. There were no board changes in the current year.

- Eugene Suyu -- Chief Executive Officer, President and Director
- Justin Sy – Chief Financial Officer and Director

¹6,600,000 10c warrants were not exercised and expired in March 2018

- Todd Blatt -- Director
- Bob Longo – Director
- Dan Cugnet - Director

OFF-BALANCE SHEET ARRANGEMENTS

The Company does not have any off-balance sheet arrangements as at June 30, 2019 and to the date of this MD&A.

CHANGES IN ACCOUNTING POLICIES

The preparation of the condensed interim financial statements and related MD&A have been prepared in conformity with IFRS requires estimates and assumptions that affect the amounts reported in these financial statements. Accounting policies for these condensed financial statements have been prepared consistent with those applied and disclosed in the Company's annual audited financial statements.

APPROVAL

The Board of Directors of the Company has approved the disclosure contained in this MD&A on August 23, 2019

ADDITIONAL INFORMATION

Additional information relating to the Company is on SEDAR at www.sedar.com.

CAUTION REGARDING FORWARD-LOOKING INFORMATION

The MD&A contains forward-looking statements and forward-looking information (collectively, "forward-looking statements") within the meaning of applicable Canadian and US securities legislation. These statements relate to future events or the future activities or performance of the Company. All statements, other than statements of historical fact are forward-looking statements. Forward-looking statements are typically identified by words such as: believe, expect, anticipate, intend, estimate, postulate and similar expressions, or which by their nature refer to future events. These forward-looking statements include, but are not limited to, statements concerning:

- the Company's strategies and objectives, both generally and in respect of its existing business and planned business operations;
- the Company plans to grow sales and expand its distribution network;
- the Company's future cash requirements;
- general business and economic conditions;
- the Company's ability to meet its financial obligations as they come due, and to be able to raise the necessary funds to continue operations; and,
- the timing, pricing, completion, regulatory approval of proposed financings if applicable.

Although the Company believes that such statements are reasonable, it can give no assurance that such expectations will prove to be correct. Inherent in forward looking statements are risks and uncertainties beyond the Company's ability to predict or control, including, but not limited to, risks related to the Company's ability to raise the necessary capital or to be fully able to implement its business strategies, and other risks identified herein under "Risk Factors".

The Company cautions investors that any forward-looking statements by the Company are not guarantees of future performance, and that actual results are likely to differ, and may differ materially, from those expressed or implied by forward looking statements contained in this report. Such statements are based on a number of assumptions, which may prove incorrect, including, but not limited to, assumptions about:

- general business and economic conditions;
- conditions in the financial markets generally, and with respect to the prospects for small capitalization commercial/technology companies specifically;

- the Company's ability to roll out its business plan which includes new product launches and associated planning in production, sales, distribution and marketing;
- the Company's ability to secure and retain employees and contractors to carry out its business plans;

These forward-looking statements are made as of the date hereof and the Company does not intend and does not assume any obligation, to update these forward-looking statements, except as required by applicable law. For the reasons set forth above, investors should not attribute undue certainty to or place undue reliance on forward-looking statements.

Historical results of operations and trends that may be inferred from the following discussion and analysis may not necessarily indicate future results from operations

BUSINESS RISK FACTORS

Each of the following factors could have a material adverse effect on the Company's financial condition and results of operations.

3D Printing Industry: The Company operates in the desktop market (alternatively described as the consumer segment) of the 3D printing industry. The desktop market has existed since 2008. Although projected to grow at a high rate, this segment can be viewed as being an early adopter stage market. The ability for the Company to successfully negotiate this market represents a substantial risk.

Dependence upon key personnel: The success of the Company's operations will also depend upon its ability to attract and retain talented and qualified personnel. The Company currently has a small management team, several of which can be considered key to expanding the Company's business operation, the loss of which would likely be detrimental to the Company.

Competition: The desktop market of the 3D printing industry is competitive with several direct competitors having much greater financial resources than the Company and more operating experience. Furthermore, the desktop market is undergoing a period of rapid innovation with many of the participants striving to improve the technology and the flexibility of the products. These factors combine to make the competitive environment a substantial risk.

Financing risks: The Company's existing financial resources have come from the issue of new equity and, may be viewed as limited. Further the Company has negative operating cash flow and a cash balance of \$133,217, as at June 30, 2019. Therefore, without growth in operating cash flow the Company will require further equity capital injection(s) to sustain itself. There can be no assurance that the Company will be able to obtain adequate financing in the future or that the terms of such financing will be favorable.

Dilution to the Company's existing shareholders: Any future equity issues may be dilutive to present and prospective holders of common shares.

Regulatory requirements: The activities of the Company are subject to regulations governing various matters, including but not limited to standards and certifications for electronic devices, employment standards for employees engaged in manufacturing and assembly, export and import regulations and duties, and sales and goods and service tax compliance. While the Company endeavours to remain compliant in all such aspect, the inability to do so could have an adverse effect on its ability to continue to operate.

Foreign currency risk: The Company's functional and reporting currency is the Canadian dollar. The Company incurs foreign currency risk on purchases that are denominated in a currency other than the functional currency of the Company, which will have an impact on the profitability of the Company and may also affect the value of the Company's assets, liabilities and the amount of equity. The Company's main risks are associated with fluctuations in the US dollar as a substantial portion of its parts and materials purchases are denominated in US dollars and a portion of its sales are denominated in US dollars. The Company does not enter into any foreign exchange hedging contracts.

Corporate Information

REGISTERED OFFICE

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HEAD OFFICE and OPERATIONS

Tinkerine Studios Ltd.
213A 8275 92 Street
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OFFICERS & DIRECTORS

Eugene Suyu
Director and CEO

Justin Sy
Director and CFO

Todd Blatt
Director

Bob Longo
Director

Dan Cugnut
Director

LISTINGS

TSX Venture Exchange: TTD.V
OTC Pink: TKSTF
FSE: WB6B

CAPITALIZATION

(as at August 23, 2019)

Shares Issued: 49,238,349

TRANSFER AGENT

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AUDITOR

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