LDFA REPORT 2018 – 2019 ANN ARBOR/YPSILANTI SMARTZONE



124 COMPANIES SERVED
57 JOBS CREATED
8 COMPANIES CREATED*

\$24 M FUNDS RAISED INVESTMENTS & GRANTS

\$305 K DIRECT SUPPORT



Ann Arbor SPARK will advance the economy of the Ann Arbor region by establishing it as a desired place for innovation, business location and growth, and for talented people to live and work. The Ann Arbor region will be recognized for its academic, business, and community resources, and its collaborative culture. For more information visit: www.annarborusa.org.

Ann Arbor-Ypsilanti SmartZone Local Development Finance Authority

Ann Arbor SPARK Quarterly Report: January 1, 2019 – March 31, 2019





Companies Created

The following companies were created this quarter per the definition listed in the glossary:

| Uniq ID | Company Description |
|---------|---|
| 11320 | Data analysis functionality for tech products and other digital artifacts. |
| 11560 | A subscription platform giving entertainers and bands with a large fan base an outlet to share original content with paying subscribers. |
| 11323 | Recycling process that captures nearly 100% of the intrinsic value of all the metals contained on a circuit board. |
| 11540 | Manufacture and sell steel fiber for Ultrahigh Performance Concrete (UHPC). |
| 11390 | New computing chip architecture that allows large amounts of data to be processed in memory and in parallel, thus offering significant power and speed improvements for data-intensive tasks. |
| 11353 | Low-cost, full-page tactile display for blind people that would enable true digital access to tactile information. |
| 11367 | Software for school exit loan counseling guidance process. |
| 11335 | Method to evaluate the safety of an autonomous vehicle. |
| | 8 Companies |

Business Acceleration

Companies in the below tables are marked with the following codes:

M = Mobility CompanyY = Ypsilanti CompanyU = University of Michigan affiliated

The following companies were evaluated through [Phase II] Due Diligence:

None during this quarter.

The following companies received [Phase III] Business Acceleration Grant support:

| Company Description | Project Description | FTEs | Billed Support |
|---|---|------|------------------|
| 233 | | 1 | \$5 <i>,</i> 496 |
| Treatment for the antibiotic-resistant intestinal disease known as Clostridium difficile. | Conduct confirmatory animal testing. | 1 | \$3,119 |
| Treatment for the antibiotic-resistant intestinal disease known as Clostridium difficile. | Prepare compound for testing. | 1 | \$2,378 |
| 11110 U | | 6 | \$459 |
| Web-based software package that allows patients to complete their personal and family history at home. | License agreements. | 6 | \$459 |
| 11112 | | 1 | \$573 |
| Software products that enable IBM Security AppScan and IBM QRadar to support new advanced capabilities. | Formation, document creation, license negotiations. | 1 | \$573 |
| 11148 MU | | 1 | \$500 |
| 3D printheads for multi-material and high-resolution printed electronics. | Corporate formation. | 1 | \$500 |
| 11172 Y | | 5 | \$300 |
| Pharmaceutical to treat NASH and vascular anomalies. | Corporate formation. | 5 | \$300 |
| 11212 | | 1 | \$2,323 |
| A personal loan assistant that simplifies terms and guides students through lowering their aid package and automatically paying interest while in school. | Graphics, website, UI. | 1 | \$735 |
| A personal loan assistant that simplifies terms and guides students through lowering their aid package and automatically paying interest while in school. | Graphics, website, UI. | 1 | \$485 |
| A personal loan assistant that simplifies terms and guides students through lowering their aid package and automatically paying interest while in school. | Graphics, website, UI. | 1 | \$1,103 |

| Company Description | Project Description | FTEs | Billed Support |
|---|---|------|------------------|
| 11310 | | 1 | \$965 |
| Continuous, non-invasive, wearable blood pressure monitoring device. | Equity financing and Delaware conversion. | 1 | \$387 |
| Continuous, non-invasive, wearable blood pressure monitoring device. | Equity financing and Delaware conversion. | 1 | \$578 |
| 11312 | | 1 | \$755 |
| Decentralized cryptocurrency exchange. | LLC formation package, terms and conditions for website, trademark filing, nondisclosure agreement. | 1 | \$90 |
| Decentralized cryptocurrency exchange. | LLC formation package, terms and conditions for website, trademark filing, nondisclosure agreement. | 1 | \$665 |
| 11320 | | 2 | \$6,468 |
| Data analysis functionality for tech products and other digital artifacts. | SAFE Note creation. | 2 | \$500 |
| Data analysis functionality for tech products and other digital artifacts. | Trademark, contractor and equity grant, terms of service/privacy policy/DMCA, and HIPAA and compliance research. | 2 | \$68 |
| Data analysis functionality for tech products and other digital artifacts. | Accounting system set up. | 2 | \$1,500 |
| Data analysis functionality for tech products and other digital artifacts. | Corporate formation package. | 2 | \$1,500 |
| Data analysis functionality for tech products and other digital artifacts. | Trademark, contractor and equity grant, terms of service/privacy policy/DMCA, and HIPAA and compliance research. | 2 | \$2,900 |
| 11335 M | | 2 | \$656 |
| Method to evaluate the safety of an autonomous vehicle. | Legal formation, review employee contracts. | 2 | \$656 |
| 11344 | | 0.5 | \$3,928 |
| Algorithmic water beta platform to directly price and index water risk in financial portfolios. | C corporation conversion, term sheet development for seed round, external advisor agreements, key partner due diligence. | 0.5 | \$3,928 |
| 11351 | | 2 | \$636 |
| Harness for snow, surf, and land kiting. | Supply chain assistance and prototype development. | 2 | \$636 |
| 11367 | | 1 | \$5 <i>,</i> 400 |
| Software for school exit loan counseling guidance process. | Corporate formation package. | 1 | \$1,500 |
| Software for school exit loan counseling guidance process. | Logo design. | 1 | \$900 |
| Software for school exit loan counseling guidance process. | Contractor, advisor, equity, and option agreements. | 1 | \$3,000 |
| 11373 | | 1 | \$1,900 |
| Software development studio with a focus on digital games, entertainment, and tools. | Trademark. | 1 | \$1,900 |

| Company Description | Project Description | FTEs | Billed Support |
|--|---|------|----------------|
| 11376 | | 6 | \$2,300 |
| Analytics-ready data sets from various government departments at the municipal, county, state, and federal levels. Products include map- and report-based analytics, as well as web-based dashboards and decision tools. | Branded PowerPoint template, website update, promotional brochure updates, LinkedIn company page, one sheet. | 6 | \$2,300 |
| 11390 | | 6 | \$5,500 |
| New computing chip architecture that allows large amounts of data to be processed in memory and in parallel, thus offering significant power and speed improvements for data-intensive tasks. | Corporate formation. | 6 | \$5,500 |
| 1161 M | | 2 | \$3,250 |
| Autonomous last mile delivery trailer. | Setting up an accounting system. Assist in updating financial models for fundraising. Provide financial consulting during fundraising. | 2 | \$3,250 |
| 3965 Y | | 5 | \$14,800 |
| Window products that let air in but keep the rain out. | Create e-commerce website and digital marketing plans. Create e-commerce website and | 5 | \$4,800 |
| Window products that let air in but keep the rain out. | digital marketing plans. | 5 | \$10,000 |
| 4586 U | | 4 | \$703 |
| Heat technology generates nonelectric, reusable heat on demand. | Strategic positioning and partnership. | 4 | \$703 |
| 6545 | | 2.5 | \$2,750 |
| Software platform applies predictive analytics to strategic decisions regarding IP management. | Identify an actionable marketing strategy to increase sales through targeted and direct marketing efforts. | 2.5 | \$1,350 |
| Software platform applies predictive analytics to strategic decisions regarding IP management. | Identify an actionable marketing strategy to increase sales through targeted and direct marketing efforts. | 2.5 | \$1,400 |
| 7117 U | | 13 | \$628 |
| Data processing algorithms and curated genetic database software as a service. | Website design and development. | 13 | \$628 |
| 7201 | | 0 | \$3,000 |
| Provides quality analytics and initiative programs for improved compliance to accepted standards of clinical care. | Market development including branding, refresh website, and sales collateral. | 0 | \$1,500 |
| Provides quality analytics and initiative programs for improved compliance to accepted standards of clinical care. | Market development including branding, refresh website, and sales collateral. | 0 | \$1,500 |
| 7531 U | | 1 | \$300 |
| Lactation simulation model and a breastfeeding education app. | Video marketing and production prep for social media, website, and email rollout. | 1 | \$300 |
| 7656 | | 2 | \$300 |
| Platform matching corporations and law firms with vendors who provide ancillary legal services. | Implement UX/UI improvements based on customer feedback. | 2 | \$300 |

| Company Description | Project Description | FTEs | Billed Support |
|--|--|-------------|-------------------------------|
| 7674 M | | 1 | \$10,750 |
| Platform of sensors, software, and analytics that harvest key data from manufacturing machines, processes, people, and translate it to actionable intelligence. | Design for website redesign. | 1 | \$325 |
| Platform of sensors, software, and analytics that harvest key data from manufacturing machines, processes, people, and translate it to actionable intelligence. | Build financial model, develop growth plan, and establish competitive strategy within IoT market. | 1 | \$1,100 |
| Platform of sensors, software, and analytics that harvest key data from manufacturing machines, processes, people, and translate it to actionable intelligence. | Specialty sensor design and prototype testing. | 1 | \$4,868 |
| Platform of sensors, software, and analytics that harvest key data from manufacturing machines, processes, people, and translate it to actionable intelligence. | Research patent activity and file provisional. | 1 | \$375 |
| Platform of sensors, software, and analytics that harvest key data from manufacturing machines, processes, people, and translate it to actionable intelligence. | Trademark and copyright. | 1 | \$333 |
| Platform of sensors, software, and analytics that harvest key data from manufacturing machines, processes, people, and translate it to actionable intelligence. | Improve graphical user interface. | 1 | \$3,500 |
| Platform of sensors, software, and analytics that harvest key data from manufacturing machines, processes, people, and translate it to actionable intelligence. | Build financial model, develop growth plan, and establish competitive strategy within IoT market. | 1 | \$250 |
| 7704 U | | 1 | \$9,695 |
| Computer vision-based phone or tablet-based application for construction workers' safety and ergonomics monitoring/analysis. | Liberty Mutual SaaS contract, master SaaS contract. | 1 | \$920 |
| Computer vision-based phone or tablet-based application for construction workers' safety and ergonomics monitoring/analysis. | Accounting system set up. | | |
| | | 1 | \$575 |
| Computer vision-based phone or tablet-based application for construction workers' safety and ergonomics monitoring/analysis. | Software architecture improvements. | 1 | \$575 \$2,225 |
| application for construction workers' safety and | | | |
| application for construction workers' safety and ergonomics monitoring/analysis. Computer vision-based phone or tablet-based application for construction workers' safety and | improvements. Software architecture | 1 | \$2,225 |
| application for construction workers' safety and ergonomics monitoring/analysis. Computer vision-based phone or tablet-based application for construction workers' safety and ergonomics monitoring/analysis. Computer vision-based phone or tablet-based application for construction workers' safety and | improvements. Software architecture improvements. Software architecture | 1 | \$2,225 \$1,475 |
| application for construction workers' safety and ergonomics monitoring/analysis. Computer vision-based phone or tablet-based application for construction workers' safety and ergonomics monitoring/analysis. Computer vision-based phone or tablet-based application for construction workers' safety and ergonomics monitoring/analysis. Computer vision-based phone or tablet-based application for construction workers' safety and ergonomics monitoring/analysis. Computer vision-based phone or tablet-based application for construction workers' safety and ergonomics monitoring/analysis. | improvements. Software architecture improvements. Software architecture improvements. | 1 1 1 | \$2,225 \$1,475 \$3,275 |

| Company Description | Project Description | FTEs | Billed Support |
|--|--|------|----------------|
| 7814 | | 4 | \$2,274 |
| Commercializing a revolutionary material innovation which enables highly sensitive, rugged, low power, and directional detection of neutron radiation. | Help with Zigby integration. | 4 | \$574 |
| Commercializing a revolutionary material innovation which enables highly sensitive, rugged, low power, and directional detection of neutron radiation. | Help with Zigby integration. | 4 | \$1,700 |
| 7815 U | | 1 | \$3,320 |
| Online learning platform for contract lawyers. | Promotional material design. | 1 | \$210 |
| Online learning platform for contract lawyers. | Ad design work for two digital ads. | 1 | \$260 |
| Online learning platform for contract lawyers. | Website redesign and inbound marketing funnel. | 1 | \$2,850 |
| 7876 U | | 2 | \$4,000 |
| Wearable graphene nanoelectronics alcohol sensor for real-time alcohol monitoring. | Prototype Design Assistance. | 2 | \$4,000 |
| 7947 | | 1 | \$5,000 |
| Ankle-foot orthotic integrated shoe. | Validation testing. | 1 | \$2,500 |
| Ankle-foot orthotic integrated shoe. | Validation testing. | 1 | \$2,500 |
| 8143 M | | 27 | \$1,000 |
| Secure vehicle data harvesting product. | SEO Optimization for website | 27 | \$1,000 |
| 8255 Y | | 3 | \$1,900 |
| Communications software for B2B or B2C companies. | Trademark. | 3 | \$1,900 |
| 8364 MU | | 2 | \$450 |
| Programming language for Computer Numeric Control manufacturing. | Trademark. | 2 | \$184 |
| Programming language for Computer Numeric Control manufacturing. | Trademark. | 2 | \$266 |
| 8393 | | 1 | \$13,740 |
| B2B marketplace where businesses can easily find quality IT professionals. | Improve SEO. | 1 | \$2,000 |
| B2B marketplace where businesses can easily find quality IT professionals. | Improve SEO. | 1 | \$3,000 |
| B2B marketplace where businesses can easily find quality IT professionals. | User interface (UI) and implement conversational AI capabilities. | 1 | \$1,700 |
| B2B marketplace where businesses can easily find quality IT professionals. | Build and launch inbound lead generation campaigns. | 1 | \$60 |
| B2B marketplace where businesses can easily find quality IT professionals. | Create a brand platform, recommendations for overall brand, 12-month marketing plan, and website content. | 1 | \$5,000 |
| B2B marketplace where businesses can easily find quality IT professionals. | User interface (UI) and implement conversational AI capabilities. | 1 | \$1,200 |
| B2B marketplace where businesses can easily find quality IT professionals. | Build and launch inbound lead generation campaigns. | 1 | \$780 |
| | | | |

| 8440 U UI/UX front-end development of | 2.5 | \$2,250 |
|---|---------|----------|
| UI/UX front-end development of | | +_, |
| the application and bets testing. | 2.5 | \$1,160 |
| Web platform to facilitate end of life decisions. UI/UX front-end development of the application and bets testing. | 2.5 | \$1,090 |
| 8591 | 1 | \$1,500 |
| Compliance training SAAS platform, primarily focused on safety and security issues, in particular, workplace violence ("WPV") prevention, and active shooter preparedness. | . 1 | \$500 |
| Compliance training SAAS platform, primarily focused on safety and security issues, in particular, workplace violence ("WPV") prevention, and active shooter preparedness. | . 1 | \$500 |
| Compliance training SAAS platform, primarily focused on safety and security issues, in particular, workplace violence ("WPV") prevention, and active shooter preparedness. | . 1 | \$500 |
| 8651 | 3 | \$8,000 |
| Proprietary chip, camera, and image processing software package, to verify that a tissue sample has enough tissue to make a diagnosis.Prepare and submit a 513(g) FDA device classification confirmation application. | | \$8,000 |
| 8658 | 3 | \$14,700 |
| Builds and hosts complete, professionally-designed, mobile-responsive websites.Create graphics for use in marketi materials. | ing 3 | \$4,500 |
| Builds and hosts complete, professionally-designed, mobile-responsive websites.Legal costs associated with Series Seed funding. | 3 | \$700 |
| Builds and hosts complete, professionally-designed, mobile-responsive websites.Upgrade the front-end design of product. | 3 | \$5,000 |
| Builds and hosts complete, professionally-designed, mobile-responsive websites.Create graphics for use in marketi materials. | ing 3 | \$4,500 |
| 8774 M | 5 | \$5,204 |
| V2X software to make roads and vehicle-to-everything interactions safer. Legal advice and negotiation of a Series A term sheet. | 5 | \$5,204 |
| 8777 U | 2 | \$6,000 |
| Low cost, research-based program designed to enrich people's lives and reduce psychological distress. Mentorship and guidance. | 2 | \$2,000 |
| Low cost, research-based program designed to enrich people's lives and reduce psychological distress. Mentorship and guidance. | 2 | \$2,000 |
| Low cost, research-based program designed to enrich people's lives and reduce psychological distress. Mentorship and guidance. | 2 | \$2,000 |
| 8778 U | 1 | \$2,500 |
| Employment agreements, researcPortable oxygen concentration device.and manufacturing agreementsreview, corporate governance. | ch 1 | \$2,500 |

| Company Description | Project Description | FTEs | Billed Support |
|--|--|------|----------------|
| 8794 | | 5 | \$2,000 |
| Software application that guides home buyers by making the transaction steps transparent to all parties. | Wire frame, design, build and deploy marketing website with focus on product positioning, value proposition, and simplicity. | 5 | \$2,000 |
| 8807 | | 2 | \$300 |
| Makerspace focused on electronics, and education offering a range of hands-on, application-based classes and workshops in programming and electronic design. | Brand identity design, and brand strategy development. | 2 | \$300 |
| 8832 | | 9 | \$6,584 |
| Accurate security breach detection tool with actionable information for IT teams to detect and respond to cyber security events. | Digital marketing playbook including inbound marketing, pay- per-click strategy, paid social media, local SEO, national SEO, landing page development. | 9 | \$4,755 |
| Accurate security breach detection tool with actionable information for IT teams to detect and respond to cyber security events. | Digital marketing playbook including inbound marketing, pay- per-click strategy, paid social media, local SEO, national SEO, landing page development. | 9 | \$1,723 |
| Accurate security breach detection tool with actionable information for IT teams to detect and respond to cyber security events. | Spinout new company formation. | 9 | \$105 |
| 8834 M | | 2 | \$3,000 |
| Month-to-month car subscription with insurance, maintenance, and roadside assistance included. | Business development. | 2 | \$450 |
| Month-to-month car subscription with insurance, maintenance, and roadside assistance included. | Business development. | 2 | \$2,550 |
| 8862 | | 1 | \$17,015 |
| Mobile learning platforms to help young people combat sexual violence and misconduct. | Website maintenance. | 1 | \$3,900 |
| Mobile learning platforms to help young people combat sexual violence and misconduct. | Website maintenance. | 1 | \$4,800 |
| Mobile learning platforms to help young people combat sexual violence and misconduct. | Customer Service Agreement, licensing, equity incentive, advisor, shareholder/commercial agreement, general counseling. | 1 | \$501 |
| Mobile learning platforms to help young people combat sexual violence and misconduct. | Customer Service Agreement, licensing, equity incentive, advisor, shareholder/commercial agreement, general counseling. | 1 | \$752 |
| Mobile learning platforms to help young people combat sexual violence and misconduct. | Logo redesign and designing sales collateral. | 1 | \$7,063 |
| 9923 | | 3 | \$1,520 |
| Software platform that makes augmented reality and virtual reality enterprise content creation and publishing super easy. | Marketing work/brand building | 3 | \$1,520 |
| Total (48 Companies) | | 154 | \$192,065 |

Talent Programs

Entrepreneur-In-Residence Program

This quarter, fifteen companies utilized the entrepreneur-in-residence program. This program is designed to attract and retain C-level individuals in the community by leveraging their talent and experience to add substantial value to client companies.

| Uniq ID | Company Description | FTEs | Billed Support |
|---------|--|------|----------------|
| 8364 MU | Programming language for Computer Numeric Control manufacturing. | 2 | \$2,325 |
| 6345 | Ensures proper hand hygiene for hospitals to increase compliance and cut down on infections. | 23 | \$8,000 |
| 8832 | Accurate security breach detection tool with actionable information for IT teams to detect and respond to cyber security events. | 9 | \$763 |
| 8761 | System that allows companies to understand network attack from the outside-in and discover new threats and assess their global impact. | 15.5 | \$7,463 |
| 11376 | Analytics-ready data sets from various government departments at the municipal, county, state, and federal levels. Products include map- and report-based analytics, as well as web-based dashboards and decision tools. | 6 | \$7,250 |
| 8862 | Mobile learning platforms to help young people combat sexual violence and misconduct. | 1 | \$5,000 |
| 11110 U | Web-based software package that allows patients to complete their personal and family history at home. | 6 | \$9,350 |
| 5640 | Interactive tablet menu for restaurants. | 5.5 | \$263 |
| 6977 UY | Human capital management software optimizing hiring, evaluations, and workflows for education and healthcare. | 1.5 | \$17,150 |
| 7815 U | Online learning platform for contract lawyers. | 1 | \$8,525 |
| 4432 U | Life science research recruiting software. | 6 | \$5,925 |
| 11312 Y | Decentralized cryptocurrency exchange. | 1 | \$7,163 |
| 11212 | A personal loan assistant that simplifies terms and guides students through lowering their aid package and automatically paying interest while in school. | 1 | \$6,500 |
| 8591 | Compliance training SAAS platform, primarily focused on safety and security issues, in particular, workplace violence ("WPV") prevention, and active shooter preparedness. | 1 | \$12,000 |
| 8440 U | Web platform to facilitate end of life decisions. | 2.5 | \$5,150 |
| | Total (15 Companies) | 82 | \$102,825 |

Intern Matching Funds Program

The Ann Arbor SPARK internship program provides up to \$3000 of matching funds to a qualified, growing company to support a three-month intern. This frees up additional funds for other purposes and provides a de-risked way to try out a potential permanent addition to the team - an opportunity that is invaluable during the pivotal period of initial hires. Often the talent is retained at the company after the matched period ends. Special consideration is given to applicants who are considering moving to Ann Arbor and Ypsilanti from another tech hub or have skillsets in high demand. While originally conceived as a summer program, it continues to meet the needs of startups year-round.

| Uniq ID | Company Description | FTEs | Billed Support |
|---------|---|------|----------------|
| 8556 | Web-based staffing platform for summer camps and prospective camp staff to find each other. | 4 | \$398 |
| 8393 | B2B marketplace where businesses can easily find quality IT professionals. | 1 | \$1,667 |
| 8658 | Builds and hosts complete, professionally-designed, mobile-responsive websites. | 3 | \$5,038 |
| | Total (3 Companies) | 8 | \$7,102 |

SPARK Central Innovation Center

Lower Level

Incubator clients are charged a license fee per seat, or person(s) using the space. Exit dates may have passed as some clients have a month-to-month arrangement.

Virtual Clients

The Virtual Client program at SPARK Central is ideal for those who need drop-in co-working space and amenities at an affordable rate, with month-to-month terms. Some examples are the earliest "investigative stage" founders looking to network and validate their concept, companies at a later stage of growth who want to remain plugged into the core of the entrepreneurial community, or community partners who leverage the location and flexibility this option allows.

Third Floor

The third-floor incubator space is composed of a shared open office environment and two smaller offices complete with a kitchen, conference rooms, phone booths, and controlled entry. Due to the open layout of the space, clients are free to expand as needed while "seats" only correspond to their billed rate. This model is designed for the stage of company building their strategy, product, and team after attaining investment or revenue.

Fourth Floor

The 6,000 square foot space is ideal for growth stage companies that are either grown in-house or moving to the area. This workspace has space for over 60 people.

SPARK East Innovation Center

Virtual Clients

The Virtual Client program at SPARK East is ideal for those who need drop-in co-working space and amenities at an affordable rate, with month-to-month terms. Some examples are the earliest "investigative stage" founders looking to network and validate their concept, companies at a later stage of growth who want to remain plugged into the core of the entrepreneurial community, or mission-aligned community partners who leverage the location and flexibility this option allows.

Seated Clients

Incubator clients at SPARK East have designated work spaces, and access to the facility 24/7. They are able to use conference rooms and flex spaces freely to have working sessions with remote staff or host client meetings and events.

| Uniq ID | Company Description | Start Date | Exit Date | Seats | FTEs |
|----------|---|------------|-----------|-------|------|
| SPARK Ce | ntral - Lower Level | | | 22 | 58 |
| 8419 | Next-Generation freight marketplace focused on better user experience, lower freight costs and regulatory compliance. | 12/1/17 | 5/31/18 | 5 | 7 |
| 8631 | Productizing marketing growth tools. | 9/1/17 | 8/31/18 | 3 | 1 |
| 7620 | Software and simple hardware to integrate, retrieve, and update personal identity information. | 3/1/17 | 7/31/17 | 1 | 2 |
| 5634 | Multi-sided reviews platform that allows users and restaurants to discover and engage each-other. | 6/1/17 | 11/30/17 | 2 | 4 |
| 8603 | Runner acquisition platform for race organizers. | 8/14/17 | 2/14/18 | 1 | 2 |
| 11373 | Software development studio with a focus on digital games, entertainment, and tools. | 10/15/18 | 4/15/19 | 1 | 1 |
| 8769 | Automated legal document generation software. | 4/1/19 | 10/1/19 | 1 | 1 |
| 9978 | End to end product development firm. | 12/15/18 | 5/31/18 | 1 | 3 |
| 8143 | Secure vehicle data harvesting product. | 11/1/18 | 4/30/19 | 1 | 27 |
| 2203 | Online furniture inventory management that allows targeted retailer interaction. | 9/1/17 | 8/31/18 | 6 | 10 |
| SPARK Ce | entral - Virtual | | | 0 | 86.5 |
| 8778 | Portable oxygen concentration device. | 10/1/18 | 3/31/19 | - | 1 |
| 8364 | Programming language for Computer Numeric Control manufacturing. | 6/1/18 | 10/31/18 | - | 2 |
| 6545 | Software platform applies predictive analytics to strategic decisions regarding IP management. | 2/1/17 | 7/31/17 | - | 2.5 |
| 11560 | A subscription platform giving entertainers and bands with large fan bases an outlet to share original content with paying subscribers. | 3/15/19 | 9/15/19 | - | 1 |
| 11323 | Recycling process that captures nearly 100% of the intrinsic value of all the metals contained on a circuit board. | 12/1/18 | 3/1/19 | - | 3 |
| 7153 | Brain imaging service for development of medications or devices for the central nervous system. | 7/1/14 | 6/30/17 | - | 1 |
| 7982 | Drug discovery SaaS product. | 1/1/19 | 6/30/19 | - | 5 |
| 8793 | A portable, 180° rear/side view vision system with no fish eye effect. | 12/15/17 | 5/15/18 | - | 2 |
| 8774 | V2X software to make roads and vehicle-to-everything interactions safer. | 1/15/18 | 7/16/18 | - | 5 |
| 8534 | New chemical entity to treat Metabolic Syndrome and Type II diabetes. | 7/1/17 | 12/31/17 | - | 2 |
| 7046 | Electronics based metering and power line communication. | 4/1/14 | 1/1/16 | - | 1 |
| 8862 | Mobile learning platforms to help young people combat sexual violence and misconduct. | 3/1/18 | 8/31/18 | - | 1 |
| 8393 | B2B marketplace where businesses can easily find quality IT professionals. | 7/15/17 | 7/15/18 | - | 1 |
| 8206 | Personality testing insights for kids aged seven to 13. | 2/1/18 | 7/31/18 | - | 4 |
| 8789 | Digital health platform that assists patients in navigating through the complex processes before and after surgery. | 4/15/18 | 10/31/18 | - | 2 |

| Uniq ID | Company Description | Start Date | Exit Date | Seats | FTEs |
|----------|--|------------|-----------|-------|------|
| 9924 | Mobile imaging unit rental and brokerage. | 3/26/18 | 1/31/19 | - | 2 |
| 11248 | Money transfer service. | 8/1/18 | 12/31/18 | - | 3 |
| 8028 | Online platform for festivals, vendors and attendees to share data and ideas. | 9/16/16 | 1/31/19 | - | 2 |
| 6407 | Preventative education. | 2/18/19 | 8/18/19 | - | 2 |
| 11105 | Do it yourself financial planning in a digital platform. | 5/1/18 | 11/30/18 | - | 1 |
| 11483 | End-to-end e-commerce platform empowering social influencers to take their brand to the next level by creating, marketing and selling exclusively designed products to enable conversion of their loyal and engaged followers and monetize them into customers. | 4/3/19 | 10/3/19 | - | 2 |
| 7815 | Online learning platform for contract lawyers. | 9/1/18 | 2/28/19 | - | 1 |
| 9936 | Disposable oxygenating technology that can be integrated into existing dressings/therapies. | 3/1/18 | 7/31/18 | - | 2 |
| 4227 | Engineering services, including advanced FEA, CAD, and high-end design solutions. | 5/13/11 | 1/1/16 | - | 3.5 |
| 8122 | Platform for pharmacies and physicians' offices to source prescription drugs. | 8/1/16 | 12/31/17 | - | 2 |
| 8609 | Quotation Lifecycle Management (QLM) applications focused on managing the interaction between our customer companies and their customers and suppliers. | 10/1/17 | 3/31/18 | - | 3 |
| 8384 | App and cloud service to connect dietitians and their clients for efficient, timely interaction. | 7/1/17 | 12/31/17 | - | 2 |
| 6600 | Medical device for vision enhancement in persons with partial loss of sight. | 6/1/13 | 12/31/16 | - | 2 |
| 8645 | Personal protection modular system which will protect a person from pistol shots, knife attacks, and Tasers. | 10/1/17 | 3/31/18 | - | 2 |
| 8189 | UAVs to detect methane at solid waste landfills. | 4/1/17 | 4/30/18 | - | 4 |
| 11308 | Electronic platform to deliver communication skills. | 3/14/19 | 9/14/19 | - | 1 |
| 7777 | SaaS enabled ride-sharing platform. | 5/1/16 | 10/31/16 | - | 14 |
| 8591 | Compliance training SAAS platform, primarily focused on safety and security issues, in particular, workplace violence ("WPV") prevention and active shooter preparedness. | 7/19/17 | 1/18/18 | - | 1 |
| 11343 | Platform to facilitate peer-to-peer educational experiences within local communities. | 11/1/18 | 2/28/19 | - | 2 |
| 8187 | Platform for building B2B digital communities using proprietary blockchain technology. Members of customer's communities are able to conduct commercial activities with one another with no fear of fraud or cybercrime. | 6/1/18 | 12/31/18 | - | 1.5 |
| SPARK Ce | entral - 3rd Floor | | | 0 | 3 |
| 8521 | A SaaS platform enabling healthcare providers to better understand their potential patient's decision patterns, language, and preferences. | 1/1/18 | 6/30/18 | - | 3 |

| Uniq ID | Company Description | Start Date | Exit Date | Seats | FTEs |
|----------|---|------------|-----------|-------|-------|
| SPARK Ce | ntral - 4th Floor | | | 72 | 154.5 |
| 4519 | Platform giving independent app publishers technology for customized native ads and access to advertisers. | 9/1/17 | 2/28/17 | 5 | 10 |
| 4803 | An intuitive integrated display that retrieves medical data. | 4/25/16 | 10/25/16 | 5 | 6 |
| 7374 | Augmented reality app for immersive digital experiences based on children's books. | 6/1/17 | 2/15/19 | 3 | 3 |
| 11254 | N/A | 3/1/19 | 8/31/19 | 1 | 1 |
| 8037 | Mobile software which provides reassurance of the safety and wellbeing of aging loved ones living independently. | 9/6/16 | 4/1/19 | 3 | 7 |
| 9923 | Software platform that makes augmented reality and virtual reality enterprise content creation and publishing super easy. | 9/1/18 | 2/28/19 | 1 | 3 |
| 11514 | Automation and custom panel build industry. | 3/1/19 | 5/31/19 | 3 | 40 |
| 8588 | Search Fund, an investment vehicle to purchase a small business. | 8/1/17 | 1/31/18 | 1 | 1 |
| 8116 | Social media listening and analysis software utilizing machine learning. | 6/1/17 | 11/30/17 | 5 | 9 |
| 11376 | Analytics-ready data sets from various government departments at the municipal, county, state, and federal levels. Products include map- and report-based analytics, as well as web-based dashboards and decision tools. | 3/1/19 | 10/1/19 | 6 | 6 |
| 11476 | Postmodern ERP, enabling businesses to run more efficiently and eliminate wasteful activities. | 3/12/19 | 9/12/19 | 3 | 2 |
| 8050 | Employee engagement SaaS app. | 12/1/17 | 5/31/18 | 5 | 12 |
| 7336 | Supply chain software. | 1/1/19 | 12/31/19 | 3 | 12 |
| 6835 | Combustion cycle and injection technology. | 4/5/19 | 9/30/19 | 16 | 8 |
| 8359 | Device identification technology to help the digital display advertising more effectively target audiences. | 9/1/17 | 2/28/18 | 2 | 7 |
| 8806 | Turnkey passive home entry module. | 7/13/18 | 1/16/19 | 3 | 4 |
| 8797 | Off-the-shelf machine learning applications. | 3/1/18 | 8/31/18 | 3 | 7 |
| 7754 | Sensors and measurement devices for electromagnetic radiation enabling essential technologies. | 7/1/17 | 12/31/17 | 1 | 4.5 |
| 7754 | Sensors and measurement devices for electromagnetic radiation enabling essential technologies. | 3/25/19 | 9/25/19 | 1 | 4.5 |
| 10190 | Visual recognition and machine learning technology utilizes a knowledge base that correlates body shape and proportion to silhouette and design to automatically curating clothing assortments into custom boutiques built for each shopper's shape and proportion. | 6/1/18 | 12/31/18 | 2 | 7.5 |
| SPARK Ea | st - Seated | | | 18 | 24 |
| 1782 | Laser imaging systems integrator, for combustion diagnostics, materials, and spectroscopic analysis. | 3/15/14 | 3/15/19 | 5 | 7 |
| 5604 | Online language learning platform. | 9/1/18 | 9/1/19 | 2 | 1 |
| 5604 | Online language learning platform. | 7/1/17 | 12/31/18 | 1 | 1 |

| Uniq ID | Company Description | Start Date | Exit Date | Seats | FTEs |
|----------|---|------------|-----------|-------|-------|
| 8366 | Physiological performance data analytics company. | 1/1/19 | 12/31/19 | 10 | 8 |
| 1782 | Laser imaging systems integrator for combustion diagnostics, materials, and spectroscopic analysis. | 3/15/19 | 3/15/24 | - | 7 |
| SPARK Ea | ist - Virtual | | | 0 | 25.5 |
| 11172 | Pharmaceutical to treat NASH and vascular anomalies. | 11/1/18 | 4/30/19 | - | 5 |
| 8255 | Communications software for B2B or B2C companies. | 10/1/18 | 3/31/18 | - | 3 |
| 8636 | Guided meditation and respiratory biofeedback app. | 2/1/18 | 7/31/18 | - | 2 |
| 3965 | Window products that let air in but keep the rain out. | 12/1/17 | 12/31/18 | - | 5 |
| 7927 | Mobile platform for connecting people with the same chronic conditions. | 1/1/19 | 6/30/19 | - | 1 |
| 11252 | Two wheeled 'series hybrid' for developing markets. | 3/21/19 | 9/21/19 | - | 1 |
| 3549 | Disposable patient lifting system. | 9/7/10 | 3/31/16 | - | 3 |
| 8885 | Streetwear clothing company. | 3/1/18 | 8/30/18 | - | 3 |
| 6977 | Human capital management software optimizing hiring, evaluations, and workflows for education and healthcare. | 10/24/18 | 4/24/19 | - | 1.5 |
| 11312 | Decentralized cryptocurrency exchange. | 9/1/18 | 12/31/18 | - | 1 |
| | Total (82 Companies) | | | 112 | 351.5 |

Hosted Networking and Educational Events

This quarter's events are broken down by month in the following table.

| Event Name | Date | # of Entrepreneurs | # of Attendees | Purpose of Event |
|---|---------|-----------------------|-------------------|--|
| Fintech Meetup | 1/16/19 | N/A | 14 | Learning and sharing about all things FinTech (Finance + Technology). |
| BD Legislative Delegation Briefing | 1/17/19 | N/A | 35 | N/A |
| Engage Affect | 1/17/19 | N/A | N/A | Sponsorship of entrepreneur events in Ann Arbor. |
| Game Developer Meetup | 1/17/19 | N/A | 35 | International Game Developers Association brings Michigan's game- dev community together. |
| SPARK.ed taught by Ted Dacko | 1/23/19 | 20 | 20 | Exploring four common sales challenges entrepreneurs face. |
| Do: Better Sponsorship | 2/5/19 | N/A | N/A | Sponsorship for exposure during upcoming event and staff execution of future events. |
| BD Career Services Connect Event | 2/7/19 | N/A | 50 | Professionals from Saxony, Germany pursuing international collaboration with companies in Ann Arbor. |
| SPARK.ed taught by Ted Dacko | 2/13/19 | 15 | 15 | Exploring four common sales challenges entrepreneurs face. |
| Spellbound Graduation | 2/13/19 | N/A | 100 | Going away celebration for Spellbound. |
| R Meetup | 2/18/19 | N/A | 25 | Meetup for individuals interested in topics related to R Language. |
| ASA Meetup | 2/19/19 | N/A | 12 | Meetup for individuals interested in topics regarding the American statistical association. |
| Fintech Meetup | 2/20/19 | N/A | 28 | A group for anyone interested in learning and sharing about all things FinTech (Finance + Technology). |
| A2 Mobility Meetup | 2/26/19 | N/A | 30 | Mobility meetup for thought leaders in Ann Arbor. |
| Pitch Club | 2/27/19 | N/A | 70 | Ann Arbor pitch competition for startups in the area. |
| Intermitten Partner Sponsorship | 3/3/19 | N/A | N/A | Future event for a2Tech360 |
| Middle West | 3/8/19 | N/A | 3000 | Michigan House at SXSW sponsorship of events, badges, exposure, etc. |
| Engage Affect | 3/9/19 | N/A | N/A | Networking collaboration on the impact of community building. |
| BioArbor | 3/13/19 | N/A | 45 | Experts speak on how to create an investor-friendly financial model for our business |
| SESI Midwest Entrepreneurship Conference | 3/15/19 | N/A | N/A | Annual entrepreneurship conference hosted by Eastern Michigan University. |
| SPARK.ed taught by Arbor Dakota | 3/20/19 | N/A | 7 | Getting over the entrepreneur myopia. |

| A2 Student Tech Trek | 3/22/19 | N/A | 60 | Opportunity for students and employers to connect. |
|---|---------|-----|------|--|
| SPARK.ed taught by Huck Finch | 3/27/19 | N/A | 18 | Identify your X-factor, clear value prop and elevator pitch for your brand. |
| SPARK.ed | 3/27/19 | N/A | N/A | Instructor for SPARK.ed taught by Huck Finch |
| International Gamers Association Meet-Up | 3/28/19 | N/A | 22 | N/A |
| SPARK.ed taught by Bud Gibson | 3/31/19 | N/A | 48 | Best practices to effectively gain and manage influencers on social media platforms. |
| Total (26 Events) | | 35 | 3634 | |

Microloans

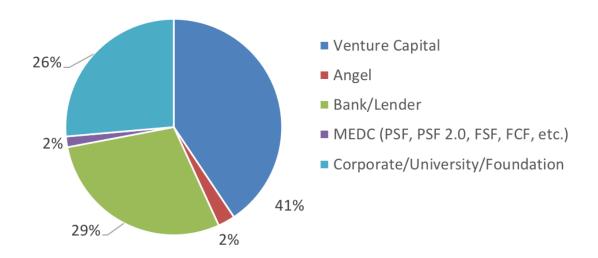
| Number of loans currently outstanding: | 10 |
|--|--------------|
| Current total loan amount outstanding | \$480,697.67 |
| Loan amounts repaid this fiscal year | \$19,523 |
| Loans written off this fiscal year | \$33,917 |
| Cumulative Jobs retained | 97 |
| Cumulative net Jobs created | 11 |
| Payment made back to LDFA this fiscal year | 0 |
| Current balance of the microloan account | \$29,532.28 |

Capital Raised

Capital transactions reported this quarter are more numerous than other quarters due to the inclusion of data captured by the annual survey. The following table lists transactions reported by companies previously served by LDFA funded programs:

| Uniq ID | Transaction Details | Total Amount (\$) |
|------------|--|-------------------|
| Venture Ca | Venture Capital | |
| 3644 | Private Capital | \$7,875,000 |
| 1286 | TKM Ventures | \$220,000 |
| 8050 | RPM Ventures, Grand Ventures | \$625,000 |
| 7032 | Agilent Technologies | \$900,000 |
| Angel | | \$603,600 |
| 8050 | 8 Angels | \$545,000 |
| 7032 | 5 Angels | \$58,600 |
| Bank/Lend | ler | \$6,828,000 |
| 1471 | Fifth Third Bank | \$3,650,000 |
| 1471 | Fifth Third Bank | \$2,800,000 |
| 1471 | Fifth Third Bank | \$378,000 |
| MEDC (PSF | , PSF 2.0, FSF, FCF, etc.) | \$378,000 |
| 8050 | Invest Michigan | \$250,000 |
| 7032 | Invest Michigan, Invest Detroit | \$128,000 |
| Corporate, | /University/Foundation | \$6,250,000 |
| 7448 | Series A Investment Round led by Blue Cross Blue Shield Venture Partners | \$5,000,000 |
| 8050 | MINTS | \$500,000 |
| 7032 | MINTS | \$750,000 |
| | Total (14 Transactions) | \$23,679,600 |

Quarter 3 Capital Transactions



Integrated Marketing Plan



Marketing Performance Metrics | Q3

Using an integrated marketing strategy to increase LDFA brand awareness

| Marketing Communications Tool | Description | LDFA FY 18 – 19, Q3 | Compared to Last Quarter | |
|-------------------------------|--|---------------------|-----------------------------|--|
| Website Visits | Visits to our website will raise awareness and provide valuable tools and resources. | 48,736 | + 14% | |
| Video Views | Video views on multiple platforms to reach wider audiences. | | | |
| Social Media Impressions 🔘 | General visibility on a variety of popular social media platforms. | 826,826 | - 21% | |
| Social Media Interactions | Direct, positive interactions with people from all over the world. | 16,154 | - 57% | |

Methodology

Initial Data Entry

A procedure was implemented in late 2008 requiring all entrepreneurs requesting assistance of Ann Arbor SPARK for Business Acceleration services, Incubator space or Boot Camp to fill out an online form which could be accessed through the SPARK website. Basic information including name, address, phone, email and brief description of company are required. This information is automatically fed into Salesforce. An effort is made to connect with all inquiries within 48 hours. In an initial communication, additional data gathered by SPARK personnel determines if the entrepreneur meets minimum criteria to warrant further discussion and assistance. At that time, a better description is captured of the applicant's needs.

Retained FTEs

We capture the number of FTEs that a company had at the start of an engagement of any kind. This number becomes our retained jobs number and is not altered. However, for reporting purposes it is possible the retained jobs number can change for a company if that company takes advantage of multiple services and their FTE count changes between those services. For example, when a team attends Boot Camp there may be only one FTE: the entrepreneur. When that team returns for Business Accelerator services there may be additional FTEs: co-founders or initial hires. When reports are generated on Boot Camp attendees the team's retained FTE number would be one. When reporting on Business Accelerator clients, the retained FTEs would be more than one.

Current FTEs

Throughout the year 'current jobs' is collected from entrepreneurs through three methods. When SPARK staff meet with entrepreneurs FTE updates are gathered and recorded in the CRM system. Starting midway through this contract year, written documentation is being obtained from every company at the start of each engagement. This document is attached to their file to corroborate the FTE count listed as start of engagement.

Annual Survey

All current and former clients are surveyed annually using Clicktools: an online survey tool that synchronizes with Salesforce. Our survey asks for data including current employment and other vital company information. Unfortunately, the response to our surveys has been less than 100%. The response rates for each of the four areas are listed in each section. If an entrepreneur sends SPARK data via the survey that does not pass a visual inspection they are contacted and asked to verify the data. If an adjustment is made to the CRM data, written documentation from the entrepreneur is attached to the file.

Jobs Created

New FTEs or "Jobs Created" are calculated by subtracting the retained jobs for the particular service we provided from the current job count, which gives us the added jobs since that particular engagement started.

Software

During this quarter, the software line in our budget was used in the following ways:

- 1. TrueJob: \$5,550.00 Job board platform for economic development organizations and trade associations.
- 2. Calendly: \$96.00 Scheduling software.
- 3. Salesforce: \$286.97 Customer relationship management (CRM) platform.
- 4. Zendesk: \$474.00 Customer experience tool to help manage the incubators.
- 5. DocuSign: \$1,782.86 Electronic signature service for documents/agreements.
- 6. Salesforce: \$2,811.00 Customer relationship management (CRM) platform.
- 7. Zendesk: \$375.00 Customer experience tool to help manage the incubators.

Glossary

In an effort to reduce unnecessary complication, SPARK and the LDFA keep definitions of terms consistent with MEDC. Included for reference are applicable definitions provided by the MEDC:

Companies Served

The number of tech companies that contractor provided services to, including accelerator grants, incubator space, mentoring, consulting, training, etc.

Full-Time Equivalent

All W-2 employees and full-time workers compensated in equity. All part-time employees count as 0.5 FTE. Interns and independent contractors (1099) are not included in this definition.

Jobs Created

Number of jobs created by the companies that contractor served or are incubator clients. Does not include contract positions, only full-time equivalents.

Jobs Retained

Number of jobs retained by the companies that contractor served or are incubator clients. Does not include contract positions. Basically, includes the number of positions or employees at the companies that have been retained because of the funding from the incubator or because of the services that the incubator provided.

New Companies Created

Number of new companies created as a result of contractor's involvement. Companies can be defined as sole proprietorship, LLC, Corp, etc. Involvement can mean: 1) contractor provided services or funding to the company, 2) the company is located in contractor's incubator, 3) the company is a university spinout, 4) contractor spoke with the newly formed company and provided them help with the next steps in building his/her company for example other resources, training classes, etc., or 5) contractor spoke with the CEO/CTO prior to the company formation. A company is only counted as 'new' if it is incorporated within the subsequent 12 months of the service provided.

Tech Company

A business in which research and development brings forth an innovative product or process. The innovation typically involves intellectual property that contributes to a strong competitive advantage in the marketplace and serves as a foundation for a high rate of growth.