



**Business Plan**  
**April 24, 2007**

Muhammad Raza  
Michael Vachette  
Thomas Deslandres  
Kendall Chuang  
Shawn Lankton



## Abstract

The pay parking management equipment industry of the United States is a \$3.2 billion industry with immense potential for additional revenue. Current systems exist to provide total parking system management, but they fail to provide an efficient, secure system that is easy to use for both parker and lot owner. Park-Find offers a solution that will change the way people think about parking. We offer a unique technology that allows parking lot owners to actively monitor and manage their lots via an autonomously running video tracking system. With Park-Find, customers will increase their profitability with a solution that provides more benefit to parkers. Our industry analysis indicates that there is significant need for this type of product, and that there exists an opportunity to penetrate the market with our novel solution. Because of our strong intellectual property and strategic positioning in the market, we expect Park-Find to grow and become profitable as well as becoming an attractive acquisition to established parking solution providers. Through careful positioning, we expect liquidation in the next five years.



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# Executive Summary

## *Venture*

Parking is something that most everyone is familiar with and nearly all of us do every day. We have been trained to use various methods of payment and control that are scattered around to help owners and managers of parking systems deal with the volume of parkers that use their facilities everyday. Over the years, the technology used to manage parking has been changing. Spring-loaded mechanical parking meters led to digital parking meters. Next, ticket-based machines were introduced, which can sometimes take cash or even credit card thus allowing someone to park without carrying a pocket full of change.

Park-Find is prepared to enter the market with the next step in parking management solutions. Using our innovative technology, the gates and tickets of today will vanish. No longer will people be required to wait in long lines to enter and exit. Parking places can be found automatically. Parking as an industry becomes more profitable, and parking your car becomes less of a chore.

This dream is made possible by recent developments in the field of computer vision. New algorithms allow computers to take video from small wireless cameras placed in a parking facility, process the information, understand it, and produce a simple map of which spaces are available and which spaces are occupied. From here, this map can be integrated with existing payment systems to streamline the process of payment, simplify management and enforcement, as well as give parkers hints about where to park to save time and effort.

## *Value*

The parking management equipment industry is very large (\$3.2 billion annually), and is perpetually re-invested in by pay-parking facilities nationwide. Right now the market is in upheaval as companies are searching for a technology solution that fits the needs of the industry. Park-Find, using its innovative vision-based solution, has the opportunity to leap past other technology providers in the industry and give customers a solution that far outperforms the status quo and even other radical technologies.

Based on industry research and engineering experience we expect the Park-Find product offering to have the ability to save our customers considerable amounts of money and thereby increase their profits. We can do this for a lower cost and with greater profit margins than most competitors in the field. These factors blend to create a valuable opportunity for Park-Find to enter this market, help customers solve their problems, and in the process grow into a valuable company.

## *Team*

Our venture team is comprised of five engineering graduate students at the Georgia Institute of Technology. Each of the members has extensive engineering training and development experience. In addition to the engineering expertise of the team, there also exists considerable training and experience in the realms of business and entrepreneurship. All of the members have taken business and management courses, and several including our



interim Chief Executive Officer and Chief Management Officer have direct experience working in startups.

## Business Description

### *Company*

Park-Find began as a collaboration of five graduate students from the Georgia Institute of Technology. Years of accumulated frustration with car parking, a blend of engineering expertise, and innovative thinking among the founders led to the concept for a solution to the problem. That concept was the Park-Watch Engine which forms the platform on which to build our product and service offerings. Currently, the company is in an early research and planning phase. Currently the founders are assessing the technical feasibility, investigating IP protection, working to develop a prototype of the Park-Watch Engine, and continuing to refine our strategic plans for a product launch in mid-2008.

### *Mission*

Park-Find is committed to increasing profitability for our strategic sales partners and parking lot owners. By making parking simpler, more profitable, and more convenient, our technology, enables our customers to offer increased security and provide convenient space-finding tools to patrons of their parking system. Simultaneously, Park-Find allows lot owners to charge a premium for their parking and save money on personnel and maintenance, thus increasing their bottom line significantly.

### *Product Offerings*

Park-Find's value is derived primarily from our innovative core technology. This system takes a radical approach to parking lot management. In doing so, this system can solve many of the existing problems in the industry and provide lot managers with tools to simplify and add value to their existing operation. This technology and its associated products are described below.

### *Park-Find::Park-Watch Engine*

The Park-Watch Engine is the heart of Park-Find's product offering. This system will use visual tracking algorithms to monitor cars in the parking structure. Then based on their movements, a virtual map that shows the location of occupied and unoccupied spaces can be continuously updated. The information contained in this map can then be used in various ways to help manage parking at the facility.

Visual tracking is the process of following one or more "targets" through a video sequence. This is something that humans are naturally good at. In recent years, engineering research has been poured into this field, and now computers are capable of tracking objects through video as a person might. This is especially true when certain aspects of the system can be constrained. In our case, fixed cameras and an un-changing landscape will significantly simplify the problem of tracking cars.



The Park-Watch Engine will require that cameras be installed such that all of the parking facility is visible to at least one camera. Once cameras are installed, a one-time set up will inject all known information about the parking lot into Park-Watch. From then on, Park-Watch will keep a constant vigil noting who is parked where, and for how long. This information is then simplified into an easy to use symbolic map that can be utilized and included in our premier product.

### *Park-Find::Enforcer*

Enforcement is vitally necessary in pay-to-park operations. Without someone or something to ensure that people pay, revenue is reduced or lost completely. Often times, personnel are required to patrol the parking system to watch for violators. This must be done frequently and has tremendous costs in terms of salaries. An alternate option is to use gates to control entrance and exit, and enforce parking. Gates and their associated systems are not only expensive to install, but they come with a very large burden in upkeep. Gates are destroyed very frequently and must be replaced immediately or customers will be inconvenienced and risk of parking lot misuse will increase.

The Park-Find::Enforcer can solve both of these problems. This product works by integrating with common automated payment stations produced by third parties. These payment systems have a built-in communication system to allow them to connect to management and accounting software. Therefore, interfacing to them is not difficult, and can be done with or without the cooperation of the manufacturer.

By combining the knowledge about the locations of cars from the Park-Watch Engine with knowledge from the payment stations regarding which spaces have been paid for, it is possible to determine which cars have paid to be there, and which cars are overdue. When a car is found to be in violation, it is then possible to contact an enforcement agent immediately and alert them to the specific parking lot and space number that needs their attention.

In this way, Park-Find::Enforcer not only ensures that all available revenue is captured, but it also significantly cuts down on the demand put on enforcement personnel. Imagine the difference between an army of enforcement officers actively searching for cars that are illegally parked, or overdue for payment versus one person responding as needed to problems. The latter scenario allows the personnel budget to be reduced significantly with no loss in enforcement effectiveness.

### **Space-Finding Benefit**

One challenge when parking is finding a spot quickly. By making use of the symbolic map produced by the Park-Watch Engine it is possible to determine where all unoccupied spaces are. Then, this information can be made available to the parkers. This could be done in several ways that would be customized to the parking lot, the typical parkers, and the lot owners' preferences. Large instrumented maps could be designed to show unoccupied spaces to arriving parkers. Then, patrons could make decisions based on this information. Additionally, directions or maps to unoccupied spaces could be sent to parkers' cell phones upon their request. Both of these options would be simple and cheap to implement and

help improve the satisfaction of our customers' patrons, and possibly increase our customers' revenue by taking patronage from the competition.

**Examples of Parking with Park-Find**

Consider a typical scenario demonstrating the power of Park-Find::Enforcer. A parking patron arrives at a parking system and sees a map showing the location of available spaces. The driver notices that space number 42 is available, drives there, and parks. At this point, the Enforcer has noticed that space 42 is no longer available, and is waiting to see if the man pays. After parking, the man walks to the payment station, inserts his credit card, and selects space 42. Now that the space is occupied and paid for Enforcer rests easy until the man returns. When he returns one and a half hours later, he is able to simply get in his car and drive away. Enforcer notices his car leave and charges his credit card the appropriate amount. In this scenario there are no gates, no patrolling enforcement personnel and no hassle.

In another example, a different man arrives, parks, and pays two dollars in cash for two hours. After two hours and ten minutes, the man has still not returned. Thus, Park-Find::Enforcer notifies the on-call enforcement officer who can come directly to the location of the offending car to write a citation. Again, no waste, efficient enforcement.

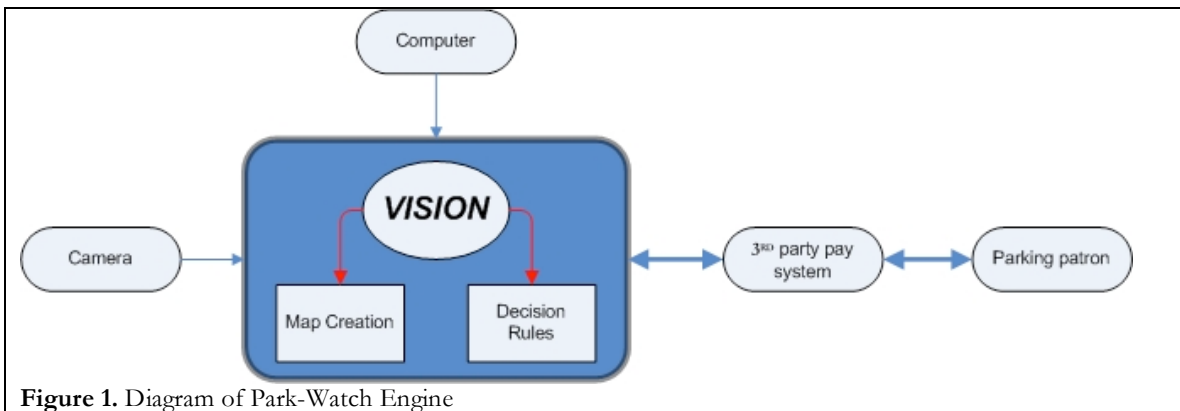


Figure 1. Diagram of Park-Watch Engine

*Park-Find::FutureProof*

As Park-Find products are primarily software, periodic updates will be issued as the Park-Find engine is improved through continual research and development. These updates will represent the ever-improving research in visual tracking as well as necessary changes based on customer feedback. Updates will be released on an approximately annual basis and will help maintain a steady cash flow for Park-Find.

These products will be our initial offering. Future products will no doubt arise as we interact more with our customers. Our continual research and development will be directed to fit market needs.



# Market and Industry Analysis

## *Industry Background*

The history of the parking industry goes back to the usage of automobile but officially the first municipal parking lot was built in Chicago in 1912. Ever since, this industry has seen steady growth as the number of vehicles has increased. For entrepreneurs, there has been great potential for financial success. The first parking meter was installed in 1935 in Oklahoma City. Since then, other sophisticated technologies such as gated parking, machine parking etc. have been introduced. Parking meters are still prevalent more than half a century later, but now share the industry with these newer technologies. As time passes, the sophistication of the technology increases. This has led to a steady churn of equipment as the new replaces the old across the country and the world.

## *Target Market*

This industry has several types of customers. These range from very small private pay lots owners to very large airport or university parking facilities. All of these potential customers would benefit from the Park-Find solution, but certain segments of the market have spending habits which are more conducive to purchasing an innovative product such as ours.

Our research shows that nearly half of pay-park facilities are self-sustaining entities designed to support another institution such as a municipality, sporting arena, airport, university, etc. These types of customers make significant revenue, but because their only goal is to pay for their own operation, they tend to re-invest profits into upgrading their infrastructure. The trend means that they are comfortable with spending money on a regular basis to improve the technology being used on their site. Furthermore, due to the scale of these large-lot customers' operations, they would benefit the most from the savings in enforcement and maintenance costs associated with Park-Find::Enforcer.

An example of this type of customer would be the Georgia Tech Parking facility with which we have conducted a detailed interview to determine market demand. The annual revenue of GT Parking is \$8 million. Of this, they spend \$750K annually on enforcement, and \$100K annually on maintenance of parking gates and arms. We estimate that by using the Park-Find::Enforcer product, they could reduce enforcement and maintenance costs by up to 50%. This would result in the purchase of our product paying for its self in as little as one year. This compelling scenario will occur in most similar large-lot management organizations, and as such should lead to significant customer interest in our product from this market segment.

As the technology grows in popularity, we expect visual tracking to become the norm for parking lot management. At this time, smaller lot owners will look to our product line for upgrades, hoping to capture the cost benefits and prestige of many larger lots already employing Park-Find solutions.



## *Market Size*

Based on available industry data, the pay parking industry in the United States has annual revenue of \$26 billion. As mentioned before, larger facilities tend to re-invest profits into upgrading technology. As a result \$3.2 billion is spent every year on replacing or upgrading parking management equipment. Needless to say, this is a compelling number, and even a small penetration into this market could be quite lucrative.

A further incentive to entry in this market is the fragmentation among suppliers. There are currently many vendors offering various parking solutions that range from traditional coin based methods to web-based or automatic payment methods. The broad range of products and solutions being offered indicate that consumers are searching for an effective technology to converge upon. While Park-Find's products will not suit all of pay-parking operations, we can expect to claim a significant part of the market once our technology is proven effective.

The time it takes for a new technology to prove effective may be quite long. In our sales forecasts we assume slow but steady increases. We do this in an attempt to not overestimate our capture of market share.

## *Market Trends*

From the study of marketing material and press releases from companies already in the industry, we have recognized a trend. Most innovative companies are trying to produce a simple, unified management solution that requires little of both parking patrons and lot managers. This is accomplished in a variety of ways. The large number of attempted solutions illustrates the market pull that is in effect. However, each new product seems to only make incremental steps toward the goal of a fully integrated, convenient system. We plan to create value by leaping several steps ahead of this steady progression and disrupt the market by providing the solution that everyone else is looking for.

## *Competitor Analysis*

As stated, this industry is flooded with potential solutions trying to meet the need of the lot owners for a simple, effective management and payment solution. The established technology in this domain consists of gates and tickets to manage and control parking and paying. These systems can be purchased from several companies through a variety of vendors. Federal APD, AMANO, and Digital Payment Systems are some of the major manufacturers of such equipment.

Additionally there are other companies attempting to leap forward and find a radical new technology to solve the problem. Examples of these are Impark, New Parking Inc., and AMPCO System Parking. Through our research, we have concluded that none yet are using computer vision as a basis for their solution. Instead, we have seen solutions using many types of other technologies. While these may have merit, they have not yet become widely accepted in the market, and could be easily displaced by the Park-Find Solution.

Furthermore, these ultra-modern solutions are often sold individually by the company developing the technology. This is typically done on a one-off basis as customers are found. The more traditional solutions (pay stations, gates, and tickets) are often sold by large



vendors like those mentioned before (Federal APD, AMANO, Digital Payment Systems). Park-Find aims to form strategic partnerships with these large providers to have them perform the selling of the Park-Find solution. The details of these proposed partnerships are found in the Marketing Section. However, by doing this we will convert a large portion of our competitors into allies. This will also propel our sales far beyond other radical solutions trying to shake up the market.

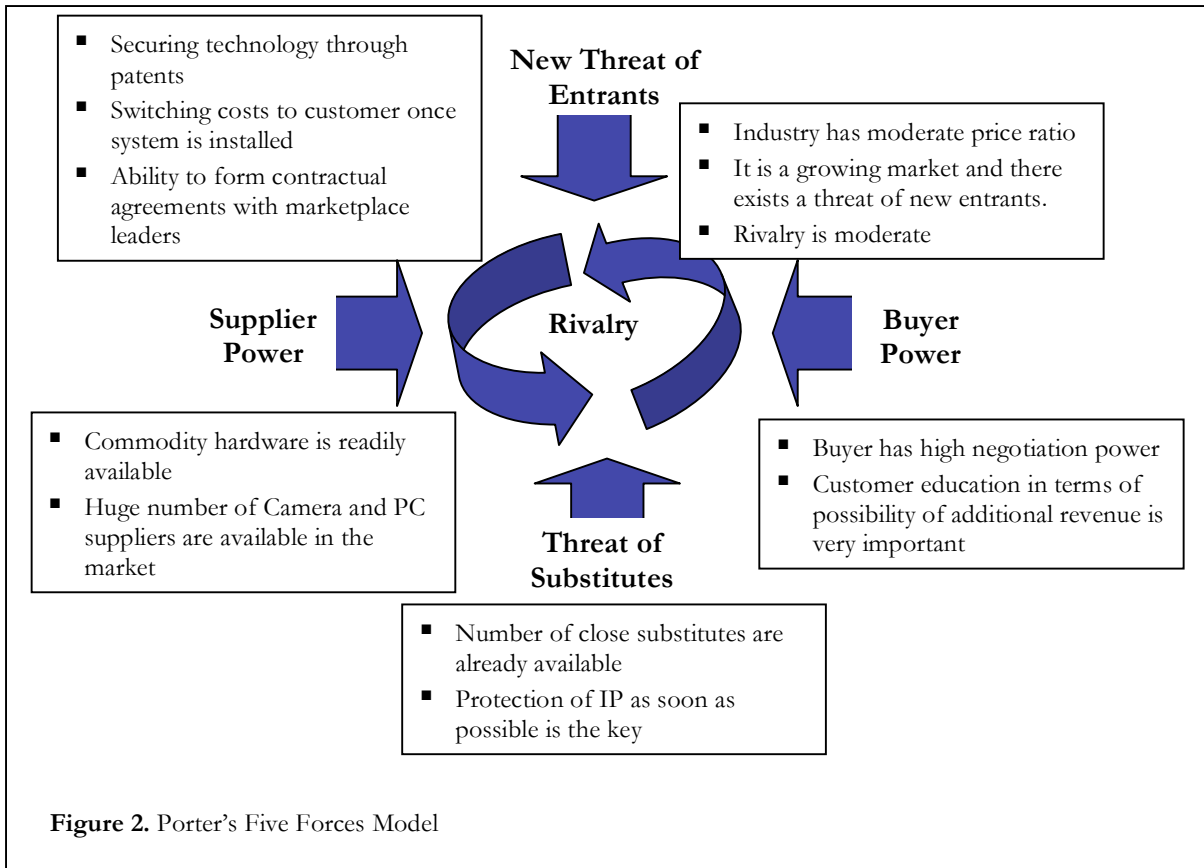
### Product Appeal

In order to fairly assess the attractiveness of this opportunity, we conducted a S.W.O.T analysis and a Porter’s Five Forces analysis to identify our position in the market place. The results are shown below.

Table 1. S.W.O.T Analysis

Strength	Weaknesses
<ul style="list-style-type: none"> <li>❖ Simplifies payment &amp; collection</li> <li>❖ Reduces need for enforcement personnel</li> <li>❖ Competitive cost, upgradeable</li> <li>❖ Elimination of parking gates</li> </ul>	<ul style="list-style-type: none"> <li>❖ No brand recognition in the market place</li> <li>❖ Technology is not yet familiar to customers</li> <li>❖ No prior management experience of the team in this domain</li> <li>❖ Lack of business contacts</li> </ul>
Opportunities	Threats
<ul style="list-style-type: none"> <li>❖ Strategic partnerships with lot management companies</li> <li>❖ Acquisition by Federal APD as a possible exit strategy</li> </ul>	<ul style="list-style-type: none"> <li>❖ Uncertainty of partner interest</li> <li>❖ Switchover cost to the parking lot owners</li> <li>❖ Threat of other companies to introduce a similar solution before us</li> </ul>

Based on the S.W.O.T. and Porter’s five forces model, it appears that this venture is a very attractive opportunity. The key to success of our venture is to have our intellectual Property patented and create a barrier for fast followers. Also, there is an imminent need to build a prototype and enter the market place as early as within 6 months. The window of opportunity in our case is very limited and we need to take complete advantage of this opportunity and secure important contracts and create a switching cost for the customers. Another disadvantage is that Park-Find lacks brand recognition in the market place. We have planned to overcome this issue by having contractual agreements with well established players in the market.



### End-User Survey

To understand the feasibility of our solution and how customers think about our product, we conducted a survey of 50 people who fall in the age group of 18-65. Based on the survey results, Park-Find discovered that 82% of the respondents would prefer to park in a lot with video surveillance over one without, and 72% of them would choose a lot with space-finding assistance over one without. Additionally, 92% of people are willing to pay at least \$1 extra per parking session for these services.

**Table 2.** Park-Find Customer Survey Results

Features	% Response
Would Prefer Video Surveillance	82%
Would Prefer Space-Finding	72%
Willing to pay \$0 extra	8%
Willing to pay \$1 extra	54%
Willing to pay \$2 extra	32%
Willing to pay \$3 extra	6%
Age Group 18-25	28%
Age Group 25-45	54%
Age Group 45-65	18%

These results seem to demonstrate one aspect of Park-Find's value. Surveillance and the convenience of finding a parking spot seem to be the dominant features that the end users



desire. We show with this survey that at the very least these features can be a differentiator for our customers against their competitors, and furthermore because parkers may be willing to pay extra for these services lot owners may be able to charge a premium once a Park-Find system is installed.

## Marketing Plan

### *Strategic Partnerships*

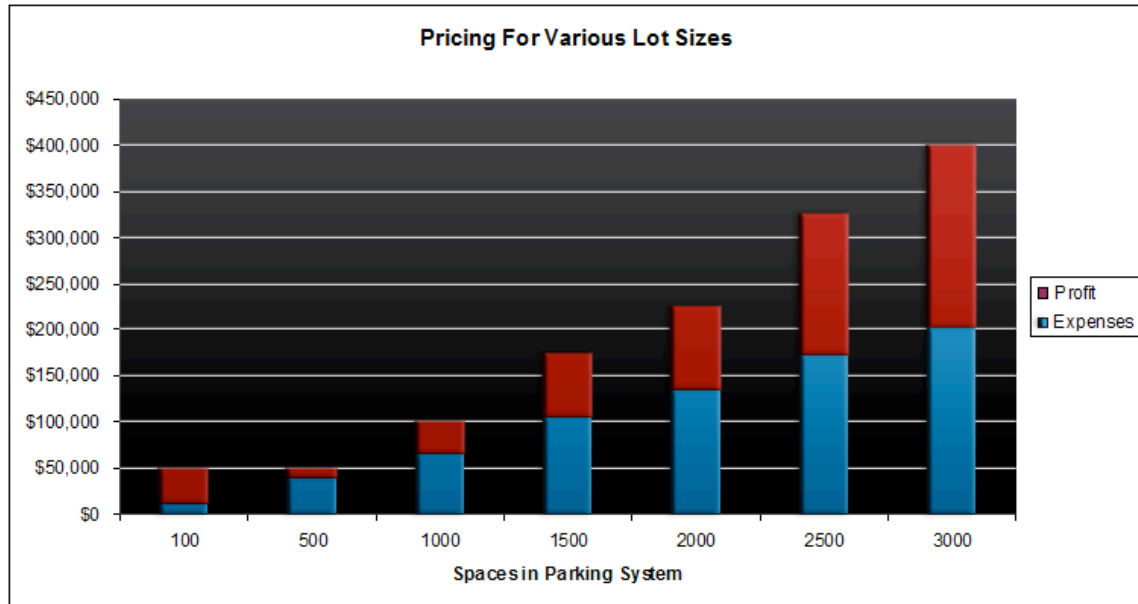
As a venture, Park-Find possesses a great deal of engineering talent. However, we do not possess selling experience or industry contacts within the parking management industry. Furthermore, with our limited resources we do not have the time or money to engage in direct selling of our products to customers. Due to these observations, we plan to form strategic selling partnerships to address these concerns.

Our product is an innovative alternative to traditional systems using gates, tickets, and pay-stations to control parking. Instead of competing directly with companies selling these solutions we plan to partner with them. Because Park-Find requires integration with existing pay-on-foot or pay-in-lane devices it makes sense to seek out a cooperative relationship with the manufacturers of these products. This would allow our partners to sell their products along side Park-Find products, allowing Park-Find::Enforcer to replace gates, ticket machines, and car detectors.

In this case, Park-Find can offer them commissions that are 15% larger than the margins they make on old technology. Therefore it will be more appealing for them to sell Park-Find products as opposed to their older products.

### *Pricing*

Park-Find pricing strategy has two components, equipment/installation cost and proprietary software cost. Based on these, Park-Find has come up with a pricing strategy that depends on the lot size. The smallest lot Park-Find aims to serve is 100 spaces. The total cost to the customer to outfit a 100 space parking lot is \$50,000 out of which \$10,000 is the commission to our partners, \$12,000 is the fixed hardware cost, \$1,000 is the installation fee for the third party. Therefore, Park-Find's total income for serving a lot size of 100 lots is \$37,800. For a bigger size lot such as 3,000, the total cost to the parking lot owner is \$400,000 out of which 197,100 is Park-Find's income and the rest is hardware, installation and commissions. Figure 3 shows our pricing model for different lot size and the cost of implementation. We can see that Park-Find is at advantage in serving bigger lots because of higher profit margin. A complete breakdown of sales price and associated expenses can be seen in Appendix C.



**Figure 3.** Chart showing breakdown of total customer cost. Profit is shown in red while costs paid to our partners are shown in blue.

### *Promotion*

Park-Find has adapted a very simple promotion and sales strategy. Our primary business model is a Business-to-Business (B2B) model. We aim to reach out to parking management companies that are well-established in the market and have a large customer base. We have identified Federal APD, AMANO and Digital Payment Technologies as most highly preferred strategic partners.

The incentive for our partners to sell our solution is that we give them commission on every Park-Find solution that is greater than the profit they make on their own product. Also, due to limited funds and lack of brand recognition, Park-Find will utilize our partner channels to sell our products to our customers.

Despite the fact that we will not sell directly to the end users, we will still aggressively market our technology so that our partners' customers ask for it and understand its value before any selling begins. We will initially maintain a website and promote it through internet ads and distributed marketing material. Once the product matures, we will increase our advertising effort in order to spread information about the Park-Find solutions. Finally, in second quarter of 2008, we will begin attending trade show booths, and advertising in industry journals.

### *Placement*

Primarily, Park-Find aims to focus its operation in and around Atlanta area due to limited availability of venture funding and lack of industry expertise. We will set up our customer service headquarters conveniently in Atlanta area to reach and solve our customer issues in a timely manner. After penetrating in the Atlanta market and securing important partnerships, we will expand the operation to other cities and eventually serve the entire country.



Because we plan to outsource the sales and installation of our product, we will not need a physical presence as Park-Find expands outside of Atlanta. Our initial local scope is merely to address any unforeseen development issues that may occur during the first several roll-outs of the technology. Once these issues have been identified and corrected, the system should have no problem scaling to serve a national or even world-wide marketplace.

### *Sustaining Competitive Advantage*

The main competitive advantages of Park-Find will be its intellectual property (IP). The IP will need to be protected by patents and trademarks, which will involve hiring a patent lawyer and registering for provisional patent protection during the development phases of the design. Our preliminary investigation into the novelty of our technology leads us to believe that patent acquisition will be possible.

The Park-Watch Engine will be protected by a utility patent which will be filed on the tracking algorithms as research developments are made. Additional protection will involve NDA's and confidentiality agreements, as well as careful employee debriefing before consulting with clients.

Trademarks will be filed for the Park-Find name, as well as for the individual products and services. This will ensure that our brand becomes valuable as we work to grow the company.

## Operations

The operation of the company will be governed by several plans designed to give Park-Find the opportunity to excel in the market. These include key relationships with other companies as well as our own internal timings and organizational structure.

### *Outsourcing and Strategic Partnership*

Park-Find operation strategy is based on strategic partnerships with the marketing management company. Besides limited interaction with our customers and suppliers, Park-Find will utilize partners' channels to deal with any potential issues and revenue management. The Park-Find operation structure has following three components.

#### **Partners**

Park-Find is a technology provider that produces and sells its proprietary software. Park-Find will work with strategic sales partners who are already providing technology solutions in the parking industry. Park-Find will initially establish contact with the partners and establish contracts to sell Park-Find technology through them. The partners will have expertise in the parking industry as well as connections with existing and potential customers. Park-Find will use these marketing channels indirectly to find customers. Partners will also collect revenue from the customers and be responsible for paying the suppliers for the hardware and installation costs. The remaining revenue is sent to Park-Find less the commission paid to the partners.

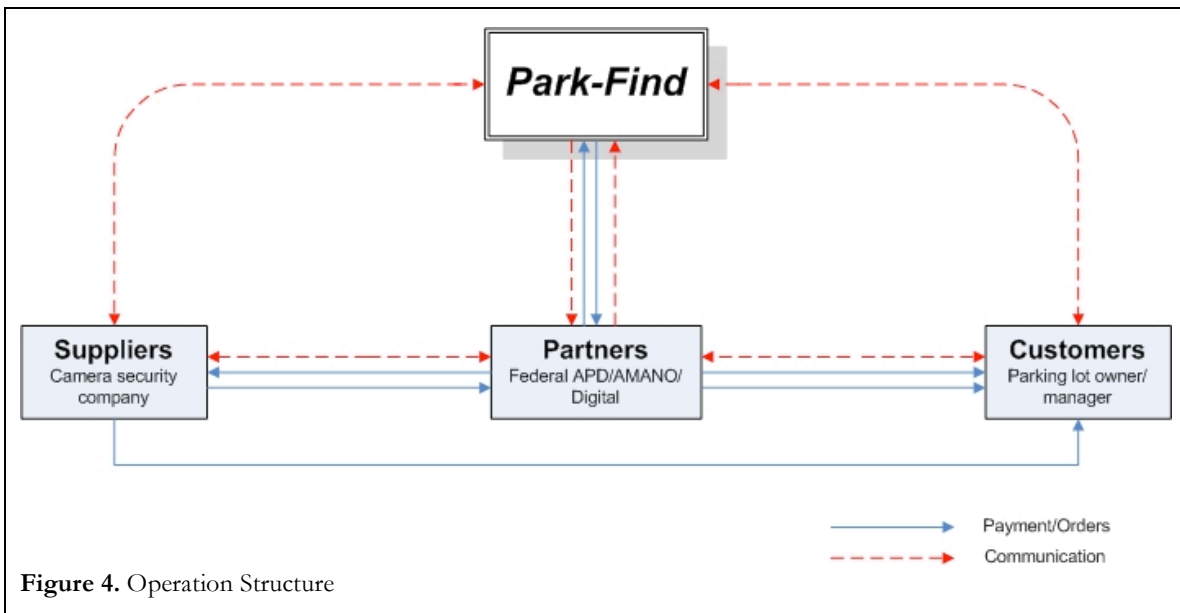
#### **Suppliers**

This third party vendor represents the company to which we will outsource the selection, purchase, and installation of the necessary closed circuit video camera technology. Park-Find acts as an intermediary between the suppliers, the partners, and the customers, but does not exchange money with the suppliers. Once the hardware needs have been established by the strategic sales partner responsible for the sale, the supplier is contacted with the technical details, customer needs, and customer information. Suppliers then assess what the technology needs are, purchase the equipment, and contact the customer to arrange an on-site installation.

**Customers**

The customers will be in direct contact with the strategic sales partner, and the camera technology supplier. In the event of technical difficulty or special circumstances, Park-Find application engineers will be available to assist in correcting any problems.

Eventually, as our strategic partners and outsourcing suppliers become more comfortable with Park-Find’s product, the interaction of Park-Find will become minimal. The entire process should begin to run smoothly after one to two years, allowing sales to increase without putting an unmanageable load on Park-Find’s employees. This entire process is summarized in Figure 4 below.



*Research and Development*

**Design and Development (Month 1-4)**

The Park-Find::Park-Watch Engine will be designed by the team of five engineers, managed by Shawn Lankton. Design specifications and requirements will be written for individual components of Park-Find, and work will be distributed between the five engineers, with weekly meetings to coordinate efforts. A prototype will be completed by the fourth month of R&D. This will be used as a marketing tool while the product is developed in the following two months into a saleable product.

**Testing (Month 4-6)**

During this stage, testing will be conducted on-site and in a variety of locations to create flexibility in the system in a wide variety of environments. In this stage, the test system will be installed in a few diverse parking lots to ensure that the system will work and be flexible under a variety of conditions. Institutions volunteering to provide parking lot space for testing will be given the use of Park-Find for free during the testing period. User feedback will also be taken in the form of polls. Improvements will be integrated into the system and during the final month we will begin selling the product at a discounted rate. The lot owners that participated in testing the system will likely be our first customers.

**Continuous Improvement (Month 6 and beyond)**

R&D will continue with the goal of innovation in order to maintain and strengthen the competitive advantage of the company. New features will be added using the Six-Sigma quality control system, taking feedback from the businesses purchasing Park-Find technology and integrating the changes into the product with the goal producing a polished tool that provides customers with all of the features they need.

*Business Milestones*

As the company progresses on its path to profitability, we are forecasting several important milestones. These events will help us judge our progress and keep us focused on meeting our self-imposed deadlines. These are described below and illustrated graphically in Figure 5.

- Making contact with the Strategic Sales Partner (April 1, 2007)
- Prototype Developed (September 1, 2007)
- First contract with a Strategic Sales Partner (September 1, 2007)
- Testing Phase Complete (November 1, 2007)
- First Product Order (November 15, 2007)
- First Product Delivery (December 1, 2007)

ID	Task	2007			2008			2009				
		Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
1	Initial software development	[Progress bar]										
2	Making contact with strategic sales partners	[Progress bar]										
3	Testing phase			[Progress bar]								
4	Selling & Marketing				[Progress bar]							
5	Customer support				[Progress bar]							

Figure 5. Business Milestones Timeline

*Venture Team*

**Interim CEO and R&D Manager: Shawn Lankton**



Mr. Lankton holds the most experience in computer vision and tracking technology. As such, he will be responsible for overseeing the initial product development. Additionally, until a CEO is hired, Mr. Lankton will also direct the actions and strategy of the team.

**Chief Marketing Officer: Muhammad Raza**

Mr. Raza will hold the important task of seeking out and forming contractual agreements with potential strategic selling partners. In addition, he will oversee the creation of Park-Find's website and other marketing materials.

**Chief Financial Officer: Michael Vachette**

Mr. Vachette has experience in business finance, and as such will be an asset as CFO. His role will be to handle our banking and capital management needs, as well as plan for our company's financial growth.

**Chief Technical Officer: Kendall Chuang**

Mr. Chuang with extensive experience in computer systems and securities will act as the CTO. He will be responsible for negotiating contracts with suppliers, and making sure all systems integrations go smoothly.

**Consulting Manager: Thomas Deslandres**

Mr. Deslandres has skill in assessing problems and making quick solutions. He will act as the Consulting Manager. In this role, he will be responsible for assisting customers in making the best use of their new Park-Find systems.

During the first six months of operation, the founders will fill their stated role as well as the role of R&D Engineer. Because we will need to develop the product as quickly as possible all employees will make this a main focus. Also, during these first six months, the founders will not be paid any salary. In November of 2007, Park-Find will begin paying salaries to its employees. At that time, each of the five owners of Park-Find will begin receiving \$26K annually. In the second quarter of 2008 we will hire a CEO and increase salaries to \$40K annually. Finally, in 2009 we will add additional technical and administrative employees. In addition to these acquisitions, we will be seeking out a qualified board of directors. These people will offer valuable experience and industry contacts. Figure 6 shows the proposed management structure. Additional information on the founders may also be found in Appendix B.

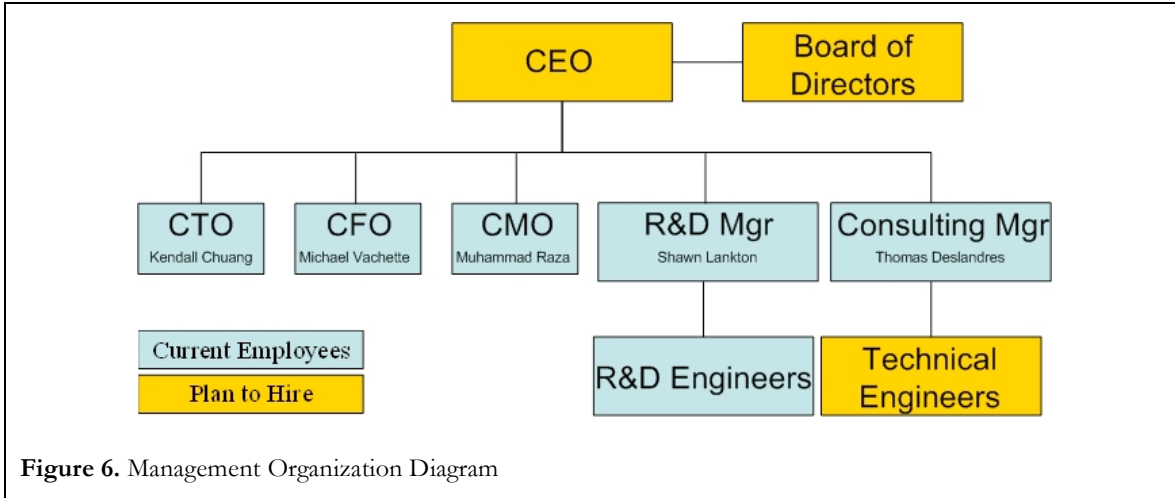


Figure 6. Management Organization Diagram

### *Legal Structure*

The Park-Find business will be instituted as a Limited Liability Company (LLC), where the members are the initial five entrepreneurs mentioned above. This organization is very common among entrepreneurs and will be an asset due to the tax benefits and legal protections it affords. Furthermore, organizing the company as an LLC will allow us to sell the company easily in the event of a buyout.

## Risk Assessment

Like every new ventures some internal or external contingencies could affect the strategy and the growth of Park-Find. Four major issues have been identified and need to be addressed.

### **Development Schedule**

First, while the technology is not developed, it is far from infeasible. We assume that because most of the technologies which are to be used in the different products already exist. It ranges over many components like video cameras, wireless devices, servers and algorithms. A working prototype can be completed quickly but our core technology must be above the quality mark needed to penetrate the market. If not, Park-Find would probably never get any client. This obstacle is expected to be solved within the first six months of development by utilizing solutions pioneered by academic researchers working on very similar problems.

### **Uncertain Partner Cooperation**

The need and desire of the market for the product is not fully understood at this time. Our potential partners' interest is still uncertain. Nevertheless our superior technology will bring them a higher sustainable profitability. On the other hand, parking lot administrators seem ready to invest in a new parking management system. Parking, especially pay-to-park surface lots found all over large cities, face fierce competition with each other. A differentiator like not needing cash to pay a parking fee and having video surveillance of the space could attract many potential parkers to our customers' lots, thereby increasing their profits. Lot owners and city government need to be educated about the current technological trends and how it can affect their daily operations. By doing this, parking lot administrators will become

our best allies in order to convince the big players of the parking industry to partner with Park-Find.

### Window of Opportunity

Park-find will not be the first mover since several companies are already involved in this particular market. However, taking advantage of the short window of opportunity is critical for this business to succeed and maintain sustainable advantage. Indeed, switching costs are most likely to be prohibitive for customers. It is mandatory to be the first company able to sell its product on a large scale. Every customer who buys a product from another company is lost for several years. Moreover, a fully operational prototype is expected by the end of 2007. In order to ensure Park-Find's market share we will begin marketing our products even before they are available. Our partners will help us to test our products and create awareness within the market.

Overall, this would be a medium-risk venture. It requires only a small investment and targets a market where few competitors have taken root and none have a significant advantage.

## Financial Plan

### Summary

In planning this venture, we have outlined the financial decisions and practices required to bootstrap this company from an initial capital amount of \$250K. This money is expected to be provided equally by the founders in return for equal equity in the company. Our calculations show that this amount of money will see us through the initial research and development phase and the preliminary months of sales where revenue will be low. In addition to careful spending in the first six months of operation, the company will have no offices and pay its employees no salary. After an initial product is created and we begin selling, employees will receive salaries, and we will begin leasing office space. As sales and revenue ramp up, we will have more expenses associated with running the business.

Despite these increases, our projections show that we will become cash-flow positive in the second quarter of 2008. During this quarter, our cash balance will drop to its lowest point at a value of \$9K. In the second half of 2008 and beyond, we will begin to see continuous growth of sales and profits culminating with a projected equity of the company in 2011 of \$2,074K. This represents an 830% return on investment for the founders.

A detailed presentation of these figures can be seen in Appendix F. We show Pro-Forma Income, Cash Flow, and Balance Statements. Below is a summary showing key figures from 2007 through 2011.

**Table 3.** Summary of Financial Projections

	\$K (USD)	2007	2008	2009	2010	2011
Total Income		\$65	\$915	\$1,230	\$1,560	\$2,100
Expenses		(\$81)	(\$553)	(\$716)	(\$882)	(\$1072)
EBIT		(\$11)	\$337	\$502	\$738	\$1046
Net Profit		(\$15)	\$236	\$356	\$527	\$750
Cash Balance		\$118	\$133	\$187	\$275	\$402
Owners' Equity		\$205	\$441	\$797	\$1,324	\$2,074



### *Assumptions*

In creating our Pro-Forma Financial information, we made several assumptions about our spending and revenue. We based these off of research and analysis of other companies in similar situations, and by contacting potential vendors. Some of these summaries are outlined in the table below.

Item	Description
<b>Cost of Goods Sold</b>	Although our software is essentially free to produce, associated miscellaneous costs will account for 5% of the sales.
<b>Selling Expense</b>	Costs associated to actually contacting customers and making the sales will be equivalent to 10% of the total sales revenue.
<b>Advertising Expense</b>	Our advertising will begin slowly with minimal budget required to maintain a web presence. Later it grows to include advertisements in industry journals and trade shows.
<b>R&amp;D Expense</b>	We allocate a small amount of money each month to cover incidental costs related to development of the Park-Watch Engine.
<b>Legal Expense</b>	We capitalize expenditures of \$25K in legal and filing fees necessary order to secure our IP.
<b>Office &amp; Rent</b>	Based on our research of Atlanta area real-estate, we calculate \$12K monthly to lease a 1000 square foot office space. We also assume that we will operate without an actual office for the first six months.
<b>Interest</b>	We assume that all available cash will be kept invested to earn interest on the money while it is not being used. An annual interest rate of 5% annually is assumed.

### *Exit Strategy*

Because we will be selling this product through established companies that are already attempting to develop similar products, we will be able to position Park-Find to be acquired by one of these companies. In all of our partnership negotiations we will ensure that we can dissolve our partnerships should the company be acquired. One of our partners would thus have a strong incentive to purchase Park-Find in order to block its competitors' ability to sell Park-Find products. Hopefully this will create competition and urgency among potential buyers and result in a high valuation of Park-Find upon liquidation.

## Appendix A – Glossary and Acronyms

**Pay-on-Foot Machine** – Device that allows parking patrons to pay for their parking after getting out of their car.

**Pay-in-Lane Machine** – Device that allows parking patrons to pay for their parking while still in their car either when entering or leaving a parking facility.

**Strategic Sales Partner** - These are well-established companies in the parking industry, such as Federal APD, Amano, or Digital. They currently

**Customer** - Customers are the parking lot owners or managers, who is interested in purchasing and using parking technology

**Supplier** - Suppliers are the camera security companies, which will supply the video cameras and install them in the parking lots.

## Appendix B – Venture Team Biographies

- **Shawn Lankton** is currently a PhD student in the school of Electrical and Computer Engineering at the Georgia Institute of Technology. He possesses extensive experience in the area of video and object tracking. His previous professional experience includes small tenure at a start-up where he was in charge of development, marketing and sales.
- **Muhammad Raza** is a Graduate student in the school of Electrical and Computer Engineering at the Georgia Institute of Technology. He has an extended knowledge of telecommunications and digital signal processing. His current professional experience includes working for a start-up where he is extensively involved in testing and installation of hardware and software solutions for the digital video encoding industry.
- **Kendall Chuang** is a Graduate student in the school of Electrical and Computer Engineering at the Georgia Institute of Technology. His studies focus on Computer Architecture, programming and digital signal processing.
- **Thomas Deslandres** is a Master's student in electrical engineering at the Georgia Institute of Technology. His major focus of study is on automation. He has a strong international background and speaks four languages. His professional experience includes work for Argonne National Laboratory
- **Michael Vachette** is a Graduate student in the school of Electrical and Computer Engineering at the Georgia Institute of Technology. He has an extended knowledge of telecommunications and computer networks. His professional experience includes work for a wireless service provider and a cell phone manufacturer.



## Appendix C – Pricing Model Details

Lot Size (Number of Spaces)	100	500	1000	1500	2000	2500	3000
Cameras Needed @ \$250	2	10	20	30	40	50	60
Computers Needed @ \$650	1	2	4	6	8	10	12
Routers Needed @ \$50	1	1	1	1	1	1	2
Total Hardware Costs	\$1,200	\$3,850	\$7,650	\$11,450	\$15,250	\$19,050	\$22,900
Hardware Installation Costs	\$1,000	\$5,000	\$10,000	\$15,000	\$20,000	\$25,000	\$30,000
Comission to Parnters	\$10,000	\$30,000	\$50,000	\$80,000	\$100,000	\$130,000	\$150,000
Total Customer Cost	\$50,000	\$50,000	\$100,000	\$175,000	\$225,000	\$325,000	\$400,000
Income to Park-Find	\$37,800	\$11,150	\$32,350	\$68,550	\$89,750	\$150,950	\$197,100



# Appendix D – Survey

## Park-Find Demand Survey

**Demographics:**

What age group do you belong to? 18-25    25-45    45-65    65 & Older

Do you own a cell phone? Yes    No

How many times each week do you pay to park? (Please include times you park in places you pay for by the hour, day, month, or year) 0    1-2    3-5    5-7    7-10

**When filling out this survey, please consider your answers for large parking lots (of at least 100 spaces). You may imagine parking decks, street parking in cities, visitor parking at universities, parking at sporting events, airports, etc.**

**Security: (Please consider this section separately from the other sections.)**

Would you prefer to park in a lot that was video monitored 24/7 versus one that was not? Yes    No

Would the added feature of video surveillance cause you to choose one lot over one without? Yes    No

Would you pay extra for to park in a lot with video surveillance? \$5    \$3    \$2    \$1    No

**Pay Convenience: ((Please consider this section separately from the other sections.))**

Would you prefer to park in a lot that you could pay for using a cell phone? Yes    No

Would the added feature of pay-by-phone cause you to choose one lot over one without? Yes    No

Would you pay extra to be able to pay by phone? \$5    \$3    \$2    \$1    No

**Space Finding: (Please consider this section separately from the other sections.)**

Would you prefer to park in a lot that could automatically help you find a space? Yes    No

Would the added feature of this assistance cause you to choose one lot over one without? Yes    No

Would you pay extra to be able to get space finding assistance? \$5    \$3    \$2    \$1    No

**All Together: (Please consider this section separately from the other sections.)**

Would you prefer to park in a lot that had all three features listed (video surveillance, convenient pay options, and space finding)? Yes    No

Would these three added features cause you to choose one lot over one without? Yes    No

Would you pay extra to be able to have all three of these features? \$5    \$3    \$2    \$1    No