A copy of this preliminary short form prospectus has been filed with the securities regulatory authorities in each of the provinces of Canada (except Quebec) but has not yet become final for the purpose of the sale of securities. Information contained in this preliminary short form prospectus may not be complete and may have to be amended. The securities may not be sold until a receipt for the short form prospectus is obtained from the securities regulatory authorities.

No securities regulatory authority has expressed an opinion about these securities and it is an offence to claim otherwise. This prospectus constitutes a public offering of these securities only in those jurisdictions where they may be lawfully offered for sale and only by persons permitted to sell these securities in those jurisdictions. These securities have not been and will not be registered under the United States Securities Act of 1933, as amended, or any state securities laws and may not be offered or sold in the United States or to United States persons except in compliance with the registration requirements of the United States Securities Act of 1933, as amended, and applicable state securities laws or under exemptions from those laws.

Preliminary Short Form Prospectus

New Issue — *October 15, 2004*

TIR Systems Ltd.

$ ●

● Common Shares

TIR Systems Ltd. (''we'', the ''Company'' or ''TIR'') is hereby qualifying in each of the provinces of Canada (except Quebec) ● common shares of the Company (the ''Common Shares'') for distribution by the Underwriters.

The outstanding common shares of the Company are listed on the Toronto Stock Exchange (the ''TSX'') under the symbol TIR. The closing price of the Common Shares on the TSX on October 15, 2004 was $5.60.

Price: $ ● per Common Share

	Price to Public	Underwriters' Fee	Net Proceeds to the Company (1)
Per Common Share	$ ●	$ ●	$ ●
Total (2)	$ ●	$ ●	$ ●

(1) Before deducting expenses of the offering estimated to be $ ● which, together with the Underwriters' fee, will be paid by the Company.

(2) The Company has granted to the Underwriters an option exercisable not later than 30 days after the date of closing to purchase an additional ● Common Shares solely to cover over-allotments, if any. If the option is exercised, the Underwriters will offer the additional Common Shares at the price per Common Share shown above. If the option is exercised, the total Price to Public, Underwriters' Fee and Net Proceeds to the Company would be $ ● , $ ● and $ ● , respectively. See ''Plan of Distribution''.

The underwriters of this offering are TD Securities Inc., Dlouhy Merchant Group Inc. and Sprott Securities Inc. (collectively, the ''Underwriters'').

The Underwriters, as principals, conditionally offer the Common Shares, subject to prior sale, if, as and when issued and delivered by the Company and accepted by the Underwriters in accordance with the conditions contained in the Underwriting Agreement referred to under ''Plan of Distribution'' and subject to the approval of certain legal matters on behalf of the Company by Farris, Vaughan, Wills & Murphy (''Farris'') and on behalf of the Underwriters by Fasken Martineau DuMoulin LLP (''Fasken Martineau''). In connection with this offering, the Underwriters may engage in market stabilization activities described under ''Plan of Distribution''.

Subscriptions will be received subject to rejection or allotment in whole or in part and the right is reserved to close the subscription books at any time without notice**.** Share Certificates representing the Common Shares will be available for delivery at closing, which is expected to occur on or about ● , 2004, or such other date as may be agreed upon, but in any event not later than ● .

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DOCUMENTS INCORPORATED BY REFERENCE

The following documents of the Company, filed with the securities commissions or similar authorities in certain of the provinces of Canada, are specifically incorporated by reference into and form an integral part of this short form prospectus:

(a) the initial annual information form of the Company dated August 19, 2004 for the year ended September 30, 2003;

(b) management's discussion and analysis for the year ended September 30, 2003;

(c) the information circular of the Company dated January 22, 2004 issued in connection with the annual meeting of the shareholders held on March 1, 2004 (excluding those portions that, pursuant to National Instrument 44-101 of the Canadian Securities Administrators, are not required to be incorporated by reference herein);

(d) the unaudited interim financial statements for the three and nine month periods ended June 30, 2004 together with management's discussion and analysis of the Company for the three and nine month periods ended June 30, 2004;

(e) the audited financial statements of the Company for the year ended September 30, 2003, together with the auditors' report thereon and the notes thereto; and

(f) the two material change reports of the Company dated and filed on SEDAR on December 29, 2003 relating to the closing of a private placement of Common Shares and brokers' warrants.

Any documents of the type referred to above and any material change reports (excluding confidential material change reports), which are filed by the Company with a securities commission or similar authority in any of the provinces of Canada after the date of this short form prospectus and prior to the termination of this offering, shall be deemed to be incorporated by reference into this short form prospectus. Any statement contained herein or in a document incorporated or deemed to be incorporated by reference herein shall be deemed to be modified or superseded, for purposes of this short form prospectus, to the extent that a statement contained herein or in any other subsequently filed document that also is or is deemed to be incorporated by reference herein modifies or supersedes that statement. Any such modifying or superseding statement need not state that it has modified or superseded a prior statement or include any other information set forth in the document that it modifies or supersedes. The making of a modifying or superseding statement shall not be deemed an admission for any purposes that the modified or superseded statement, when made, constituted a misrepresentation, an untrue statement of a material fact or an omission to state a material fact that is required to be stated or that is necessary to make a statement not misleading in light of the circumstances in which it was made. Any statement so modified or superseded shall not be considered in its unmodified or superseded form to constitute part of this short form prospectus; rather only such statement as so modified or superseded shall be considered to constitute part of this short form prospectus.

Information has been incorporated by reference in this short form prospectus from documents filed with securities commissions or similar authorities in Canada. Copies of the documents incorporated herein by reference or a copy of the permanent information record may be obtained on request without charge from the Secretary of the Company, 7700 Riverfront Gate, Burnaby, British Columbia, V5J 5M4 or by accessing the disclosure documents available through the Internet on the System for Electronic Document Analysis and Retrieval (SEDAR), which can be accessed at *www.sedar.com.*

FORWARD LOOKING STATEMENTS

Certain statements in this short form prospectus and the documents incorporated by reference herein, including statements about future events or results, may constitute ''forward looking'' statements which involve known and unknown risks, uncertainties and other factors which may cause the actual results, performance or achievements of the Company, or industry results, to be materially different from any future results, performance or achievements expressed or implied by such forward looking statements. Forward looking statements include, but are not limited to, the Company's expectations as to the use of proceeds from the offering, and the Company's success developing, designing and marketing sales of products or technologies. When used in this short form prospectus, such statements use such words as ''may'', ''will'', ''expect'', ''believe'', ''plan'' and other similar terminology. These statements reflect management's current expectations regarding future events and operating performance and speak only as of the date of this short form prospectus. These forward looking statements involve a number of significant risks and uncertainties. As a consequence, actual results might differ materially from results forecast or suggested in these forward looking statements. See Risk Factors.

ELIGIBILITY FOR INVESTMENT

In the opinion of Farris, counsel for the Company, and Fasken Martineau, counsel for the Underwriters, based on legislation in effect at the date hereof and subject to compliance with the prudent investment standards and general investment provisions and restrictions of the statutes referred to below (and, where applicable, the regulations made under those statutes) and, in certain cases, subject to the satisfaction of additional requirements relating to investment policies, standards, procedures or goals and, in certain cases, subject to the filing of such policies, standards, procedures or goals, the purchase of the Common Shares under this prospectus would not, if the date hereof were the date of closing of this offering, be precluded under the following statutes:

Insurance Companies Act (Canada)
Pension Benefits Standards Act, 1985 (Canada)
Trust and Loan Companies Act (Canada)
Cooperative Credit Associations Act (Canada)
Pension Benefits Standards Act (British Columbia)
Financial Institutions Act (British Columbia)
Loan and Trust Corporations Act (Alberta)
Insurance Act (Alberta)
Employment Pension Plans Act (Alberta)
Alberta Heritage Savings Trust Fund Act (Alberta)
Pension Benefits Act, 1992 (Saskatchewan)
The Insurance Act (Manitoba)
The Trustee Act (Manitoba)
Pension Benefits Act (Ontario)
The Trustee Act (Ontario)
Loan and Trust Corporations Act (Ontario)
Trust and Loan Companies Act (Nova Scotia)
Pension Benefits Act (Nova Scotia)

In addition, in the opinion of such counsel, based on the law as of the date hereof, the Common Shares are qualified investments under the *Income Tax Act* (Canada) and the regulations thereunder for a trust governed by a registered retirement savings plan, a registered retirement income fund, a registered education savings plan or a deferred profit sharing plan.

TIR SYSTEMS LTD.

TIR was incorporated pursuant to the provisions of the *Company Act* (British Columbia) on September 14, 1982. The head office and principal place of business of TIR is located at 7700 Riverfront Gate, Burnaby, British Columbia, V5J 5M4, and the registered office of the Company is located at 2500 - 700 West Georgia Street, Vancouver, British Columbia, V7Y 1B3.

BUSINESS OF THE COMPANY

HISTORY

Business Overview

TIR's business is to provide lighting solutions to the Architectural and Corporate Identity markets. We segment our products within these markets into two categories: 1) Solid State Lighting (''SSL'') that uses optoelectronic Light Emitting Diodes (''LEDs'') as the light source, and 2) our Light Pipe based business that uses conventional light sources.

Markets

Our SSL products currently serve two market segments.

- Architectural — Landscape, building and façade highlighting and delineation. We provide products that provide colour and changing colour to this part of the Architectural market. As such, our particular vertical market segment is termed ''Architainment'' or ''Experience Architecture'', meaning the use of architectural lighting for entertainment purposes.
- Corporate Identity — National chains for petroleum, fast food, convenience stores and big box retailers.

Our Light Pipe products currently serve the following market segment.

- Architectural — This part of the lighting market includes a number of applications including: building highlighting, remote access lighting, swimming pools, backlighting of ceilings and walls, columns and architectural elements, as well as ''Special Environments'' such as roadway tunnels, vehicle service pits, and machine vision systems.

For the Architectural market segments, we have built a distribution network of lighting manufacturers' representatives and distributors throughout North America, Europe and Asia. These distributors and manufacturers' representatives sell to architects and lighting designers that specify the lighting products used for our target markets. This distribution network tends to offer a complete range of products that serves the entire commercial and industrial lighting market, of which the Architectural market segment is the largest.

For the Corporate Identity market segments, we currently sell direct, as products need to be delivered to the end user or customer through the customer's existing supply chain. In addition, we are developing relationships with large sign companies to distribute our products into the Corporate Identity market.

As SSL develops and 'white light' LED products become viable, we expect that we will pursue two additional market segments: Speciality Illumination and General Lighting. Speciality Illumination refers to those markets that require 'white light' output products for illumination in the early high value adopter markets. An example of this is roadway lighting. Finally, we expect that SSL will start to replace the everyday fixtures that provide the majority of task illumination for commercial buildings, retail establishments and homes.

In fiscal 2000, we launched a new strategy to focus on the development of SSL enabling technologies to leverage our 15 years of lighting industry experience and the core competencies that we possessed through the development, design and integration of advanced lighting solutions based on the technology from our original product, the Light Pipe™. Fiscal 2003 was significant for us, as this was the year that SSL revenues surpassed our Light Pipe revenues, demonstrating the growth opportunities that SSL represents in the US$40 billion global general lighting market according to a study commissioned by the U.S. Department of Energy conducted in 2002.

We are developing and integrating high efficiency power supplies and power conversion technologies, full-range digital control, advanced optics, thermal management and next generation communications protocols to enable SSL. To assist in these efforts, we received a funding commitment totalling a net of $5.6 million from the Government of Canada, to support the development of SSL enabling technology.

Currently, our product portfolio is as shown below:

Architectural

Destiny Series

- Destiny LP
- Destiny CW
- Destiny CV
- Destiny CG
- Destiny SL
- Destiny DL

Light Pipe

- Ovoid Series Light Pipe
- Tubular Series Light Pipe 4″
- Tubular Series Light Pipe 6″

Color Trace
Controls

- Key37 device/AddressFX software tool
- SelectFX device/LightFX software tool

Corporate Identity

LightMark™
LightScript™

Special Environments

Roadway Tunnels

- Tunnel Light Pipe
- Tunnel Dual Beam
- Tunnel Lighting — Product Application Guide

Vehicle Service Pits

- Service Pit Light Pipe

Swimming Pools

- IllumiWave 1000
- IllumiJet

Machine Vision

- IRIDIS
- Tubular Series Light Pipe 6″
  Remote Source (MRI, Cold Storage, Hazardous, etc.)
- Tubular Series Light Pipe 6″

Solid State Lighting

Since fiscal 2000, our focus has been on the development of SSL and the early adopter markets that will take advantage of the potential energy savings, long life capabilities and electronic attributes inherent in this new technology.

SSL is comprised of a number of components, with the key one being the light source: LEDs or Organic Light Emitting Diodes (''OLEDs''). These sources are small semiconductor chips that convert electrical current directly into light without the intermediate step of combustion or excitation of gas that is required in conventional sources. First invented in 1967, LEDs have been used as indicator lights, first in panel displays and eventually in traffic signals and vehicular fleet lighting. In the mid 1990's, a blue color LED was invented that enabled the possibility of 'white light' for illumination. The light output of LEDs has been doubling approximately every 18 months according to Strategies Unlimited, a Silicon Valley based research firm that covers SSL. This technology is rapidly becoming economically and commercially viable as an alternative to lighting systems that are based on conventional light sources, such as incandescent or fluorescent.

OLEDs are a less developed technology that makes use of polymers with similar abilities to convert electricity directly into light. The key difference from LEDs is the two-dimensional nature of the light source — for example, a flat sheet of material could emit light from its entire surface. While the light output capability of this technology is not yet on par with conventional sources, in the long term, 5 years and beyond, we consider OLEDs to be an important part of SSL.

We, along with lighting industry experts and national governments, regard SSL as a technology that could take a large share of the general lighting market in the future, for the following reasons:

Energy Savings: Lighting is the largest single consumer of electricity in the world, accounting for 20-25% of the electricity generated, according to the Lawrence Berkeley Livermore Labs. A study commissioned by the U.S. Department of Energy conducted in 2002 estimates that if SSL follows a reasonable adoption pattern, US$100 billion in cumulative energy savings may be realized by 2020 in the United States.

Long Useful Life: A properly designed SSL system can provide up to 20 years of useful life, depending upon the application. This attribute can substantially reduce maintenance and re-lamping expenses for end-users.

Small Size: SSL uses light sources that are very small, allowing the use of sophisticated optics that result in more efficient use of light generated and create the potential for use where conventional vacuum tube technology cannot be used.

In order for LEDs (or OLEDs) to be incorporated into a lighting system, several other components are required: efficient power conversion, digital control and drive electronics, communications capability, thermal design, efficient optics, and system integration. It is these supporting or ''enabling'' technologies that we are developing by leveraging our 20 years of experience in the development, design, integration and sales of advanced lighting systems in the commercial lighting market.

Markets for SSL Systems

Architectural: The Architectural market segments where our products are strong are termed ''Architainment''. The term arises from the blend of architectural and entertainment lighting. In this market segment, colored light is an important component of the lighting design. Conventional lighting requires the use of filters and mechanical systems to generate colored light. Filtering white sources results in very poor energy efficiency, while mechanical systems require considerable maintenance. Customers value SSL because it efficiently generates colored light and can provide a variety of dynamic effects without any moving parts.

Examples of this market segment include:

- Casinos
- Cinemas
- Theme parks
- Tourist destinations
- Landmarks
- Public art
- Signature buildings (e.g. corporate headquarters, skyline dominant buildings, etc.)

Corporate Identity: This refers to the use of light, primarily as a component of signage, to identify a company brand or identity at a retail location. Customers in this market segment operate multiple locations and use standardized images and lighting to identify their affiliation. Conventional light sources are neon for contour lighting and channel letter illumination, and fluorescent for larger area sign backlighting. We believe that customers in this market segment will value SSL as a replacement for neon because it can reduce electricity consumption by up to 90%, as evidenced by the data from our current installations and, if properly designed, can provide up to 20 years of useful life, depending on the application, with low maintenance costs compared to conventional light sources due primarily to the elimination of lamp changes. We expect these same attributes to be valued by customers when SSL technology can match fluorescent lighting in 'white light' output for cost and energy efficiency.

Examples of this market segment include:

- Petroleum outlets
- Convenience stores
- Fast food chains
- Big box retail
- Automotive dealerships
- Financial institutions
- Other retail chains

Speciality Illumination: As SSL begins to compete with conventional lighting in 'white light' or illumination applications, we believe several applications will act as early adopters within this market segment of SSL. In general, we believe that there will be a value proposition available to the customer based on maintenance, productivity, environmental or other factors that will be compelling enough to overcome higher initial costs.

Examples of applications within this market segment include:

- Machine vision

- Cold storage and display
- Cleanroom manufacturing facilities
- Transportation, such as roadway lighting
- Hazardous area industrial facilities
- Theatrical

General Illumination: As SSL 'white light' or illumination applications become more economically viable, we believe the overall general lighting market will adopt it for use widely. We believe that there will be a value proposition available to the customer based on maintenance, user control, environmental or other factors that will be compelling enough to overcome initial higher initial costs.

Examples of segments within this market include:

- Commercial office buildings
- Residential homes

The Light Pipe™ Systems:

We have been developing and manufacturing the Light Pipe™ products for 20 years. We continue to provide solutions for area lighting in places such as airport terminals and swimming pools. In addition, we continue to supply lighting for tunnels and service pits in the transportation segment, and decorative products that, when used as a distribution mechanism for SSL, are sold into the Architainment market segment.

Research and development

TIR has a well established development team creating SSL products. This team consists of mechanical, software, electrical, optical and project engineers and technicians that work together to deliver the new products. The Company uses a core team concept which includes members from marketing, production, quality, and development to ensure the completeness and thoroughness of the new products.

TIR has recently established a dedicated research team to deliver the technologies that will be required by the general lighting market and enable new markets in the near term. The focus of the research team will be on the enabling technologies of SSL systems, including:

- Power Conversion: hardware solutions to convert line voltage to safe low voltage DC, as excess current destroys LEDs.
- Digital Control/Drive: hardware and software solutions to control the activity of the LEDs.
- Communications: hardware and software solutions to control the system from an external source, such as DMX, Internet, or other protocols.
- Distribution/Optics: use of material to create the right lighting effect for the application.
- Thermal Management/Luminaire Design: hardware systems to effect the transfer of heat away from the internal body of the LEDs.
- System Integration: product assembly design such that each component functions compatibly with the other product components.

TIR's goal is to determine the factors preventing widespread adoption of SSL into the general lighting market and develop solutions for those problems.

RECENT DEVELOPMENTS

- On October 13, 2004, we received an initial order, valued at $500,000, from our exclusive distribution partner in Japan, MBT Company Ltd., of Tokyo, Japan.
- In October, 2004, we received orders totalling $2.6 million for our Destiny Series of architectural SSL products.
- On September 30, 2004, we agreed with Technology Partnerships Canada to extend our project completion date for our funding agreement by two years to March 31, 2006. Accordingly, the period for royalty payments will be extended to September 30, 2016 or until the total royalty payments reach the maximum payable amount of $13.0 million, whichever is first.
- On September 16, 2004, we partnered with Canlyte for joint SSL product development to pursue our strategy to enable SSL for the US$40 billion general lighting market according to a study commissioned by the U.S. Department of Energy in 2002. Canlyte is a division of The Genlyte Group (''GG'') (NASDAQ:GLYT), one

of the largest companies exclusively dedicated to lighting in North America. TIR and Canlyte signed an agreement to jointly develop SSL products that take advantage of TIR's enabling technologies and GG's extensive design, manufacturing and distribution capability. The agreement establishes the framework under which TIR and Canlyte/GG will co-develop new SSL products.

USE OF PROCEEDS

The net proceeds to the Company, after deducting the fees payable to the Underwriters and estimated expenses of the offering, are expected to be $ ● million. See ''Plan of Distribution''. The net proceeds of the offering will be used to fund the Company's research and development activities and for general corporate purposes.

CAPITALIZATION OF THE COMPANY

The following table sets out the capitalization of the Company both before and after giving effect to this offering. The following table contains financial information that is derived from the unaudited interim financial statements and audited financial statements incorporated by reference in this prospectus.

Capital	Outstanding at September 30, 2003	Outstanding at June 30, 2004	Outstanding at June 30, 2004 (1)(2)
Leasehold Improvement loan	—	895,700	895,700
Capital leases	—	857,000	857,000
Total Debt	—	1,752,700	1,752,700
Shareholders' Equity			
Common Shares	7,084,800	13,222,400	●
(Authorized 100,000,000 shares)	(17,659,423 shares)	(20,435,265 shares)	(●)
Shares to be issued	—	147,500	147,500
Contributed Surplus	2,000	571,500	●
Deficit	(1,905,300)	(1,443,600)	●
Total Shareholders' Equity	5,181,500	12,497,800	●
Total Capitalization	5,181,500	14,250,500	●

(1) After deducting underwriters' commission and estimated expenses of the Offering.

(2) Excludes 2,257,392 common shares reserved for issuance as at June 30, 2004 upon the exercise of options and 103,400 common shares reserved for issuance upon exercise of a warrant issued.

SHARE CAPITAL OF THE COMPANY

The offering consists of ● Common Shares. The holders of Common Shares of the Company are entitled to one vote for each Common Share on all matters to be voted on by the shareholders and are entitled to receive such dividends as may be declared by the directors out of funds legally available therefor. The Common Shares rank junior to the rights of the holders of all outstanding preferred shares as to payment of dividends and as to repayment of capital in the event of liquidation, dissolution or winding up of the Company, whether voluntary or involuntary, or any other distribution of the assets of the Company among its shareholders for the purpose of winding up its affairs. Each Common Share is equal to every other Common Share and all Common Shares participate equally on liquidation or distribution of assets. There are no preemptive, redemption, purchase or conversion rights attaching to the Common Shares.

The authorized capital of the Company consists of 100,000,000 Common Shares and 10,000,000 Preferred Shares, all of which shares are without par value, of which 20,485,631 Common Shares and no Preferred shares of the Company were outstanding as at October 14, 2004.

DIVIDEND POLICY

The Company has paid no dividends since its inception. At the present time, the Company intends to retain any earnings for corporate purposes. The payment of dividends in the future will depend on the earnings and financial condition of the Company and on such other factors as the board of directors of the Company may consider appropriate. However, since the Company is currently shifting its focus to SSL, and consequently, entering into a development stage, it is unlikely that earnings will be available for the payment of dividends within the next three fiscal years.

PLAN OF DISTRIBUTION

Subject to the terms and conditions of an underwriting agreement (the ''Underwriting Agreement'') dated ●, 2004, between the Company and the Underwriters, the Company has agreed to sell and the Underwriters have severally agreed to purchase ● Common Shares on ●, 2004, or such later date as may be agreed upon but in any event not later than ●, 2004. The purchase price will be $ ● per Common Share or $ ● in the aggregate. The Company has granted to the Underwriters an option, exercisable no later than 30 days after the date of closing, to purchase up to an aggregate of ● additional Common Shares at the offering price set forth on the cover page of this short form prospectus and on the same terms and conditions as apply to purchases of the Common Shares offered by this short form prospectus. To the extent that the Underwriters exercise this option, each of the Underwriters will have a firm commitment to purchase the same percentage thereof which the number of Common Shares to be purchased by it pursuant to the Underwriting Agreement bears to the total number of Common Shares offered hereby. The Company will be obligated, pursuant to the option, to sell Common Shares to the Underwriters to the extent the option is exercised. The Underwriters may exercise such option only to cover over-allotments made in connection with the sale of Common Shares offered hereby. The Company will pay the Underwriters an aggregate fee of $ ● or $ ● per Common Share sold for their services in connection with this offering.

The obligations of the Underwriters under the Underwriting Agreement are several and may be terminated in certain stated circumstances and upon the occurrence of certain stated events. The Underwriters are, however, severally obligated to take up and pay for all of the Common Shares if any of the Common Shares are purchased under the Underwriting Agreement. Under the terms of the Underwriting Agreement, the Underwriters may be entitled to indemnification by the Company against certain liabilities.

Subscriptions will be received subject to rejection or allotment in whole or in part and the right is reserved to close the subscription books at any time without notice.

The Common Shares have not been and will not be registered under the United States Securities Act of 1933, as amended (the ''U.S. Securities Act'') and, subject to certain exemptions, may not be offered or sold in the United States. The Underwriters have agreed that they will not offer or sell the Common Shares within the United States except in transactions exempt from the registration requirements of the U.S. Securities Act and applicable state securities laws. In addition, until 40 days after the closing date, an offer or sale of Common Shares within the United States by a dealer (whether or not participating in this offering) may violate the registration requirements of the U.S. Securities Act.

Pursuant to a policy statement of the Ontario Securities Commission, the Underwriters may not, throughout the period of distribution, bid for or purchase Common Shares. The foregoing restriction is subject to exceptions, on the condition that the bid or purchase is not engaged in for the purpose of creating actual or apparent active trading in, or raising the price of the Common Shares. These exceptions include a bid or purchase permitted under the rules of the Ontario Securities Commission relating to market stabilization and passive market making activities and a bid or purchase made for and on behalf of a customer where the order was not solicited during the period of distribution. Under the first mentioned exception, in connection with this offering, the Underwriters may effect transactions which stabilize or maintain the market price of the Common Shares at levels other than those which might otherwise prevail in the open market. Those transactions, if commenced, may be discontinued at any time.

RISK FACTORS

An investment in the securities offered under this prospectus involves a number of risks. Prior to making an investment in the Common Shares, investors should carefully consider the following risk factors, the other information included herein, including information incorporated by reference herein, and the information included in the Company's other reports and filing.

We have a customer concentration risk, as one customer represents a significant portion of our past and expected future revenue.

We depend on BP International Limited for a significant portion of our revenues. In the last fiscal year, BP International Limited has accounted for 63% of our revenues for the year ended September 30, 2003 (73% for the nine-months ended June 30, 2004). If BP International Limited reduces its business with us or suffers from business failure, our revenues could decline materially.

If we cannot deliver products associated with significant contracts in a profitable and timely manner our margins and revenues will be negatively impacted.

Since late 2002, we have entered into a significant supply contract with BP International Limited. Our right to receive revenues under this contract depends upon our ability to manufacture and supply products that meet defined specifications. In order to realize the benefits of this agreement, we will have to continue to successfully manage the following risks:

- We priced this contract based on our estimate of current and future production costs. If we incur higher costs than anticipated, our gross margins on this contract will decrease or this contract may not be as profitable as expected.
- If we are unable to continue to commit the necessary resources or are unable to deliver our products as required by the terms of this contract, our customer may cancel the contract. In that event, any costs incurred may not be recovered and we may incur additional costs as penalties.
- If we fail to meet a delivery deadline or if the products we deliver do not meet the agreed-upon specifications, we may have to reduce the price we can charge for our products, we may be liable to pay damages to the customer, or volume commitments may be reduced.

If we are unable to successfully manage these risks or meet required deadlines in connection with one or more significant contracts, our reputation could be harmed and our margins and revenues could decrease.

Our past revenue growth rates and other operating results may not be accurate indicators of our future performance.

Although our revenues have increased year-over-year, we may not be able to sustain these historical growth rates. We may not achieve or sustain profitability in the future, and as a result, our share price may decline.

Our revenues and earnings may fluctuate from quarter to quarter, which could affect the market price of our Common Shares.

Our revenues and earnings may vary from quarter to quarter as a result of a number of factors including:

- The timing of releases of our new products.
- The timing of substantial orders.
- Possible seasonal fluctuations in demand.
- Possible delays in the manufacture or shipment of current or new products.
- Possible delays or shortages in component supplies.

Because our operating expenses are determined based on anticipated sales, are generally fixed and are incurred throughout each fiscal quarter, any of the factors listed above could cause significant variations in our revenues and earnings in any given quarter. Thus, our quarterly results are not necessarily indicative of our overall business, results of operations and financial condition. However, quarterly fluctuations in our revenues and earnings may affect the market price of our Common Shares.

Our revenue is dependent, in large part, on a limited number of orders from a limited number of customers. As a result, any substantial delay in obtaining new orders from this customer base could have an adverse effect on our results of operations. As a result of these and other factors, our results of operations have fluctuated in the past and may continue to fluctuate from period-to-period.

Our sales cycles are lengthy.

Our lighting solutions are typically specified for large projects, including tunnels, large corporate identity programs and large scale commercial buildings. In deciding to utilize the Company's products for these projects, the purchaser is typically making a significant financial commitment. Consequently, the Company's sales process is often subject to delays associated with the approval processes of the engineers and contractors working on the project as well as the approval process of the owners of the project. In addition, such projects vary considerably in the time between the commencement and completion of the project. Such projects may also experience delays over which the Company has no control. Any significant or ongoing failure by the Company to ultimately achieve such sales could have a material adverse effect on the Company's business, results of operations and financial condition.

If we are unable to design and develop new products that gain sufficient commercial acceptance, we may be unable to recover our research and development expenses and we may not be able to maintain our market share and our revenues could decline.

We depend on designing and developing new products that have not been commercially tested to achieve much of our future growth. Our ability to design and develop new products depends on a number of factors, including, but not limited to the following:

- Our ability to attract and retain skilled technical employees.
- The availability of critical components from third parties.
- Our ability to successfully complete the development of products in a timely manner.
- Our ability to manufacture products at an acceptable price and quality.

A failure by us or our suppliers in any of these areas, or a failure of these products to obtain commercial acceptance, could mean we are unable to recover our research and development expenses and could result in a decrease in our market share and our revenues.

We may not be able to sustain our current gross margins for any given product and, as a result, our profitability may decrease.

We generally price our products based on our estimate of current and future production costs. If actual production costs are higher than we anticipated, our gross margins will decrease. In addition, competitive pressures may force us to lower our product prices, which may further decrease our gross margins if we are unable to offset that effect by cost reduction measures. If our gross margins are reduced with respect to an important product line, or if our sales of lower margin products exceed our sales of higher margin products, our profitability may decrease and our business could suffer.

We depend on third parties to manufacture our products and supply key components. If they do not manufacture our products properly or cannot meet our needs in a timely manner, we may be unable to fulfill our product delivery obligations and our costs may increase, and our revenue and margins could decrease.

We outsource a substantial part of the manufacture of our products to third parties and depend heavily on the ability of these manufacturers to meet our needs in a timely and satisfactory manner. Some components used by us may only be available from a small number of suppliers, in some cases from only one supplier. Moreover, with respect to the manufacture of our current products, we currently rely on three manufacturers, any one of whom may terminate the manufacturing contract with us annually. Our reliance on third party manufacturers and suppliers subjects us to a number of risks, including the following:

- The absence of guaranteed manufacturing capacity.
- Inability to control the amount of time and resources devoted to the manufacture of our products.

If we are unable to successfully manage any of these risks or to locate alternative or additional manufacturers or suppliers in a timely and cost-effective manner, we may not be able to deliver products in a timely manner. In addition, our results of operations could be harmed by increased costs, reduced revenues and reduced margins.

If demand for our current products declines and we are unable to launch successful new products, our revenues will decrease.

Demand for one or all of these products could decline as a result of competition, technological change or other factors. If we are unable to launch successful new products, reduced demand for our current products would cause our results of operations to decline and harm our financial condition.

We may have difficulty responding to changing technology, industry standards and customer preferences, which could cause us to be unable to recover our research and development expenses and lose revenues.

Our success will depend in part on our ability to develop products that keep pace with the continuing changes in technology, evolving industry standards and changing customer and end-user preferences and requirements. Our products embody complex technology that may not meet those standards, changes and preferences. We may be unable to successfully address these developments on a timely basis or at all. Our failure to respond quickly and cost-effectively to new developments through the development of new products or enhancements to existing products could cause us to be unable to recover significant research and development expenses and reduce our revenues.

Competition from bigger, more established companies with greater resources may prevent us from increasing or maintaining our market share and could result in price reductions and reduced revenues.

The lighting industry in our primary market, North America, is dominated by four large companies that generate nearly or greater than US$1 billion in annual revenues. Although these companies do not offer competitive SSL products at this time, we expect competition from these companies to commence shortly. These companies are more established with greater financial and marketing resources that they can use to sell products that compete with ours. Existing or future competitors may be able to respond more quickly to technological developments and changes or may independently develop and patent technologies and products that are superior to ours or achieve greater acceptance due to factors such as more favourable pricing or more efficient sales channels. If we are unable to compete effectively with our competitors' pricing strategies, technological advances and other initiatives, our market share and revenues may be reduced.

We may have difficulty managing our growth, which may damage our ability to retain key personnel and to compete effectively.

Our annual revenues have increased from approximately $6.1 million in 2001 to $22.4 million in 2003 and our number of employees has more than doubled during that period. Our growth has placed significant demands on our management and other resources. Our future success will depend on our ability to manage our growth, including:

- Continuing to train, motivate, manage and retain our existing employees and attract and integrate new employees.
- Maintaining and growing manufacturing capacity.
- Developing new products in a timely manner.
- Improving and upgrading our financial and management information systems and controls.

If we are unable to manage our growth effectively, our ability to retain key personnel and to compete effectively may be damaged.

We will need to recruit, train and retain key management and other qualified personnel to successfully grow our business.

Our future success will largely depend on the continued service of our executive officers and other key management, sales, marketing and technical personnel. The loss of the services of one or more of our executive officers or other key employees could have a material adverse effect on our business, our results of operations and our financial condition. Although our executive officers and key management have executed confidentiality agreements, they are not subject to any non-competition agreements with us. In addition, our future success depends critically on our ability to recruit and retain highly qualified employees including experienced management, sales and marketing, research and development and customer service personnel. If we do not attract and retain such employees, we may not be able to grow our business. Competition for qualified employees is intense. We may not succeed in attracting or retaining sufficient personnel or it may be necessary for us to increase the level of compensation paid to existing and new employees, causing our operating expenses to be materially increased. In addition, new employees generally require substantial training, which requires significant resources and management attention. Even if we invest significant resources to recruit, train and retain qualified personnel, we may not be successful in our efforts.

Others could claim that we infringe on their intellectual property rights, which may result in substantial costs, diversion of resources and management attention, and harm to our reputation.

It is possible that other parties may claim that we have violated their intellectual property rights. Rights to intellectual property can be difficult to verify. Competitors could assert, for example, that former employees of theirs who we have hired have misappropriated their proprietary information for our benefit. A successful infringement claim against us could damage us in the following ways:

- We may be liable for damages and litigation costs, including legal fees.
- We may be prohibited from further use of the intellectual property.
- We may have to license the intellectual property, incurring licensing fees.
- We may have to develop a non-infringing alternative, which could be costly and result in the loss of sales.

Regardless of the outcome, an infringement claim could result in substantial costs, diversion of resources and management attention, and harm to our reputation.

We are a defendant in a pending intellectual property and patent lawsuit that may require us to pay substantial royalties or damages, may subject us to other equitable relief or may otherwise seriously harm our business.

We are a party to a lawsuit filed against us by Color Kinetics Incorporated (''CK'') in the District Court of Massachusetts. Although we believe that the claims of CK in this lawsuit are without merit, the lawsuit may not ultimately be resolved in our favour. If it is not resolved in our favour, we may be obligated to pay damages, may be obligated to pay an additional royalty or damages for access to the inventions covered by claims in issued US patents, may be subject to such equitable relief as a court may determine (which could include an injunction) or may be subject to a remedy combining some or all of the foregoing.

Misappropriation of our intellectual property could place us at a competitive disadvantage.

Our intellectual property is important to our success. We rely on a combination of patent protection, copyrights, trademarks, trade secrets, licenses, non-disclosure agreements and other contractual agreements to protect our intellectual property. Our intellectual property includes patent applications and numerous trade secrets and know-how. Third parties may attempt to copy aspects of our products and technology or obtain information we regard as proprietary without our authorization. If we are unable to protect our intellectual property against unauthorized use by others it could have an adverse effect on our competitive position.

Our strategies to deter misappropriation could be inadequate due to the following risks:

- Non-recognition of the proprietary nature or inadequate protection of our methodologies in the United States, Canada or foreign countries.
- Undetected misappropriation of our intellectual property.
- The substantial legal and other costs of protecting and enforcing our rights in our intellectual property.
- Development of similar technologies by our competitors.
- A substantial amount of our intellectual property consists of trade secrets and know-how, the unauthorized, misappropriation of which may be difficult to detect or to prove.

In addition, we could be required to spend significant funds and our managerial resources could be diverted in order to defend our rights, which could disrupt our operations.

Potential acquisitions may result in increased expenses and divert management's attention.

In the future, our strategy may rely on expanding our operations and business through strategic acquisitions of businesses and products. Acquisitions involve a number of risks, including:

- Diversion of management's attention during the acquisition process.
- Impact on our financial condition due to the timing of the acquisition.
- The failure of the acquired business to achieve anticipated revenue levels, cost savings or other synergies.

If realized, these risks could result in substantial costs and disrupt our operations. In addition, acquisitions could result in issuances of securities that may dilute the value of our Common Shares.

Fluctuations in exchange rates between the United States dollar and the Canadian dollar may affect our operating results.

Approximately 95% of all of our sales are in US dollars to United States or foreign-based customers. We are exposed to fluctuations in the exchange rate between the US dollar and the Canadian dollar through our operations in Canada. To reduce our risk because of currency fluctuations, we purchase our main inventory items in US dollars. If the Canadian dollar rises relative to the US dollar, our operating results may be impacted. In addition, we enter into foreign currency futures contracts as part of a hedging policy to cover our Canadian currency requirements. During 2004, we continued to enter into additional distribution agreements in Europe and the Asia-Pacific region that are denominated primarily in US dollars. We expect that as our business expands in Europe, we will also be exposed to Euro transactions and to the associated currency risk.

As our business expands internationally, we will be exposed to additional risks relating to international operations.

Our expansion into international operations exposes us to additional risks unique to such international markets, including the following:

- Increased credit management risks and greater difficulties in collecting accounts receivable.
- Unexpected changes in regulatory requirements, exchange rates, trading policies, tariffs and other barriers.
- Uncertainties of laws and enforcement relating to the protection of intellectual property.
- Language barriers.
- Potential adverse tax consequences.

Furthermore, if we are unable to develop distribution channels in Europe and the Asia-Pacific region, we may not be able to grow our international operations, and our ability to increase our revenue will be negatively impacted.

We have the ability to issue Preferred Shares with preferences over the Common Shares.

Our articles authorize our board to issue, at its discretion, up to 10,000,000 Preferred Shares. Without shareholder approval, our board has the authority to attach special rights, including voting or dividend rights, to these Preferred Shares. These rights and preferences may be superior to those of the holders of Common Shares and, accordingly, may adversely affect the rights of holders of Common Shares. Preferred shareholders who possess these rights could make it more difficult for a third party to acquire our company.

We may be required to raise additional capital.

We expect that the net proceeds from this offering and cash on hand will be sufficient to meet our working capital and capital expenditure needs for at least the next 12 months. We may need to raise additional funds. Additional financing may not be available on acceptable terms, if at all. We may also require additional capital to acquire or invest in complementary businesses, products or complementary technologies. If we issue additional equity securities to raise funds, owners of Common Shares may suffer dilution.

Our business may not grow if we do not successfully complete the offering.

The completion of the offering is subject to our ability to negotiate commercially acceptable financial terms. The completion of any negotiated financing will be subject to customary closing conditions and prevailing conditions in the capital markets. If the offering is not successfully completed, we may not be able to grow our business as currently planned.

AUDITORS, TRANSFER AGENT AND REGISTRAR

The auditors of the Company are Ernst & Young LLP, Chartered Accountants, Vancouver, British Columbia.

The transfer agent and registrar for the Common Shares is CIBC Mellon Trust Company at its principal office in Vancouver.

LEGAL MATTERS

Certain Canadian legal matters relating to the Common Shares offered by this prospectus will be passed upon at the date of closing on behalf of the Company by Farris and on behalf of the Underwriters by Fasken Martineau. As at the date hereof, the partners and associates of Farris and Fasken Martineau collectively beneficially own, directly or indirectly, less than 1% of the outstanding securities of the Company.

STATUTORY RIGHTS OF WITHDRAWAL AND RESCISSION

Securities legislation in certain of the provinces of Canada provides purchasers with the right to withdraw from an agreement to purchase securities. This right may be exercised within two business days after receipt or deemed receipt of a prospectus and any amendment. In several of the provinces, the securities legislation further provides a purchaser with remedies for rescission or, in some jurisdictions, damages if the prospectus and any amendment contains a misrepresentation or is not delivered to the purchaser, provided that the remedies for rescission or damages are exercised by the purchaser within the time limit prescribed by the securities legislation of the purchaser's province. The purchaser should refer to any applicable provisions of the securities legislation of the purchaser's province for the particulars of these rights or consult with a legal adviser.

CONSENT OF ERNST & YOUNG LLP

We have read the preliminary short form prospectus of TIR Systems Ltd. (the ''Company'') dated October 15, 2004 relating to the qualification for distribution of ● Common Shares of the Company. We have complied with Canadian generally accepted standards for an auditor's involvement with offering documents.

We consent to the incorporation by reference in the above mentioned preliminary prospectus of our report to the shareholders of the Company on the balance sheets of the Company as at September 30, 2003 and 2002 and the statements of income and deficit and cash flows for the years then ended. Our report is dated November 7, 2003 (except for note 13, which is as of December 22, 2003).

(Signed) Ernst & Young LLP
Chartered Accountants

Vancouver, Canada

October 15, 2004

CERTIFICATE OF THE COMPANY

Dated: October 15, 2004

This short form prospectus, together with the documents incorporated herein by reference, constitutes full, true and plain disclosure of all material facts relating to the securities offered by this prospectus as required by the securities legislation of each of the provinces of British Columbia, Alberta, Saskatchewan, Manitoba, Ontario, New Brunswick, Nova Scotia, Prince Edward Island, Newfoundland and Labrador.

By: (Signed) LEONARD HORDYK
President and Chief Executive Officer

By: (Signed) ISSA NAKHLEH
Chief Financial Officer

On behalf of the Board of Directors:

By: (Signed) JOHN MINGAY
Director

By: (Signed) MORGAN STURDY
Director

CERTIFICATE OF THE UNDERWRITERS

Dated: October 15, 2004

To the best of our knowledge, information and belief, this short form prospectus, together with the documents incorporated herein by reference, constitutes full, true and plain disclosure of all material facts relating to the securities offered by this short form prospectus as required by the securities legislation of each of the provinces of British Columbia, Alberta, Saskatchewan, Manitoba, Ontario, New Brunswick, Nova Scotia, Prince Edward Island, Newfoundland and Labrador.

TD Securities Inc.	Dlouhy Merchant Group Inc.	Sprott Securities Inc.
By: (Signed) Jill Leversage	By: (Signed) William Murray	By: (Signed) Michael Mccloskey