

Canadian Solar Inc.  
Form SC 13G  
March 30, 2007

OMB APPROVAL  
OMB Number: 3235-0145  
Expires: February 28, 2009  
Estimated average burden  
hours per response...10.4

**UNITED STATES  
SECURITIES AND EXCHANGE COMMISSION  
Washington, D.C. 20549**

**SCHEDULE 13G**

**Under the Securities Exchange Act of 1934**

Canadian Solar Inc.  
(Name of Issuer)  
Common Shares, no par value  
(Title of Class of Securities)  
136 635 109  
(CUSIP Number)  
December 31, 2006  
(Date of Event Which Requires Filing of this Statement)

Check the appropriate box to designate the rule pursuant to which this Schedule is filed:

- Rule 13d-1(b)
- Rule 13d-1(c)
- Rule 13d-1(d)

\* The remainder of this cover page shall be filled out for a reporting person's initial filing on this form with respect to the subject class of securities, and for any subsequent amendment containing information which would alter the disclosures provided in a prior cover page.

The information required in the remainder of this cover page shall not be deemed to be filed for the purpose of Section 18 of the Securities Exchange Act of 1934 ( Act ) or otherwise subject to the liabilities of that section of the Act but shall be subject to all other provisions of the Act (however, see the Notes).

CUSIP No. 136 635 109

Page 2 of 6

1 NAMES OF REPORTING PERSONS:  
ATS AUTOMATION TOOLING SYSTEMS INC.

I.R.S. IDENTIFICATION NOS. OF ABOVE PERSONS (ENTITIES ONLY):

2 CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP (SEE INSTRUCTIONS):

- (a)
- (b)

3 SEC USE ONLY:

4 CITIZENSHIP OR PLACE OF ORGANIZATION:

ONTARIO (CANADA)

5 SOLE VOTING POWER:

NUMBER OF 1,864,398

6 SHARES BENEFICIALLY OWNED BY SHARED VOTING POWER:

7 EACH REPORTING PERSON SOLE DISPOSITIVE POWER:  
1,864,398

8 WITH: SHARED DISPOSITIVE POWER:

9 AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON:

1,864,398

**10** CHECK IF THE AGGREGATE AMOUNT IN ROW (9) EXCLUDES CERTAIN SHARES (SEE INSTRUCTIONS):

o

**11** PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW (9):

6.8%

**12** TYPE OF REPORTING PERSON (SEE INSTRUCTIONS):

CO

**Item 1. Name of Issuer:**

Canadian Solar Inc.

**Item 1(a). Address of Issuer's Principal Executive Offices:**

Xin Zhuang Industry Park, Changshu, Suzhou, Jiangsu, 215562, People's Republic of China

**Item 2(a). Name of Person Filing:**

ATS Automation Tooling Systems Inc.

**Item 2(b). Address of Principal Business Office:**

250 Royal Oak Road, Cambridge, Ontario, Canada, N3H 4R6

**Item 2(c). Citizenship:**

Ontario (Canada)

**Item 2(d). Title of Class of Securities:**

Common Shares

**Item 2(e). CUSIP Number:**

136 635 109

**Item 3 If this statement is filed pursuant to Rule 13d-1(b), or 13d-2(b) or (c), check whether the person filing is a:**

- (a)  Broker or Dealer registered under Section 15 of the Act (15 U.S.C. 78o);
- (b)  Bank as defined in section 3(a)(6) of the Act (15 U.S.C. 78c);
- (c)  Insurance Company as defined in section 3(a)(19) of the Act (15 U.S.C. 78c);
- (d)  An Investment Company registered under section 8 of the Investment Company Act of 1940 (15 U.S.C. 80a-8);
- (e)  An investment adviser in accordance with §240.13d-1(b)(1)(ii)(E);
- (f)  An employee benefit plan or endowment fund in accordance with §240.13d-1(b)(1)(ii)(F);

- (g) o A parent holding company or control person, in accordance with §240.13d-1(b)(1)(ii)(G);
- (h) o A savings associations as defined in Section 3(b) of the Federal Deposit Insurance Act (12 U.S.C. 1813);
- (i) o A church plan that is excluded from the definition of an investment company under section 3(c)(14) of the Investment Company Act of 1940 (15 U.S.C. 80a-3);
- (j) o Group, in accordance with §240.13d-1(b)(1)(ii)(J).

**Item 4 Ownership.**

(a) Amount beneficially owned:	1,864,398.
(b) Percent of class:	6.8%.
(c) Number of shares as to which the person has:	
(i) Sole power to vote or to direct the vote:	1,864,398.
(ii) Shared power to vote or to direct the vote:	0.
(iii) Sole power to dispose or to direct the disposition of:	1,864,398.
(iv) Shared power to dispose or to direct the disposition of:	0.

**Item 5 Ownership of Five Percent or Less of a Class.**

Not applicable

**Item 6 Ownership of More than Five Percent on Behalf of Another Person.**

Not applicable

**Item 7 Identification and Classification of the Subsidiary Which Acquired the Security Being Reported on By the Parent Holding Company.**

Not applicable

**Item 8 Identification and Classification of Members of the Group.**

Not applicable

**Item 9 Notice of Dissolution of Group.**

Not applicable

**Item 10**    **Certification.**

Not applicable

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**SIGNATURE**

After reasonable inquiry and to the best of my knowledge and belief, I certify that the information set forth in this statement is true, complete and correct.

Dated: March 29, 2007

ATS Automation Tooling Systems Inc.

By: /s/ Carl Galloway

Name: Carl Galloway

Title: Treasurer