

2009 HOUSE EDUCATION

HB 1475

## 2009 HOUSE STANDING COMMITTEE MINUTES

Bill/Resolution No. HB 1475

House Education Committee

Check here for Conference Committee

Hearing Date: January 27, 2009

Recorder Job Number: 7924

Committee Clerk Signature *Carmen Hart*

Minutes:

**Rep. Gerry Uglen, District 19**, appeared in support of HB 1475. **(See Attachment 1.)**

**Chairman Kelsch:** Is the \$70,000 currently in the CTE budget? We would have more clubs or schools be able to apply for grants?

**Rep. Gerry Uglen:** Yes, that is correct?

**Rep. Rick Berg, District 45**, appeared. They started this two years ago with \$70,000. He really likes the grant. It goes out on a matching basis. It requires local commitment not only helping students but also financial commitment. He thinks it is a good program. Robotics is playing a bigger role in our manufacturing in North Dakota, so the knowledge and the people that are inspired through a program like this will have a real opportunity here in North Dakota to help us grow.

**Wayne Kutzer, Director of the Dept. of Career and Technical Education**, appeared in support of HB 1475. **(See Attachment 2.)**

**Vice Chair Lisa Meier:** Is there a limit to the dollar amount that a school can apply for?

**Wayne Kutzer:** Yes. There was a \$10,000 limit for post secondary and \$2,000 for schools.

**Rep. Phillip Mueller:** Back when I was on a CTE Board, we had the robotics program, but we moved them around. Is that still the way it is being done?

**Wayne Kutzer:** I think you are referring to the emerging technologies or high tech. We still do rotate high-tech equipment around. That is different from this program. This program is actually designed for schools to get into to actually enter the robotics competitions that are held at UND or NDSU.

**Rep. Phillip Mueller:** The grants provide for onsite equipment that doesn't leave the site?

**Wayne Kutzer:** The case of the first robotics that equipment stays at the site. In terms of the best, look at NDSU, they provide the equipment back out to the schools and schools assemble it, and then it goes back to NDSU.

**Rep. Jerry Kelsh:** How much is in the Governor's budget for this program?

**Wayne Kutzer:** There is nothing in the Governor's budget. There is \$70,000 that was put in our budget last biennium, and that has stayed in our budget so this would add an additional \$50,000 to it.

**Rep. Jerry Kelsh:** Why didn't you request more this year instead?

**Wayne Kutzer:** I was contacted by Rep. Uglem in terms of how we can put more dollars into it. At the time when we were putting our budgets together, we had used the dollars that were there but that wasn't one of our priority list.

There was no opposition.

The hearing was closed.

# 2009 HOUSE STANDING COMMITTEE MINUTES

Bill/Resolution No. HB 1475

House Education Committee

Check here for Conference Committee

Hearing Date: February 3, 2009

Recorder Job Number: 8546

Committee Clerk Signature *Carmen Hart*

Minutes:

**Rep. Lee Myxter** made a motion for a **Do Pass** on HB 1475. **Rep. Phillip Mueller** seconded the motion.

**DO PASS AND BE REREFERRED TO APPROPRIATIONS. 8 YEAS, 5 NAYS, 1 ABSENT AND NOT VOTING.** **Rep. Karen Karls** is the carrier of the bill.

Date: 2-3-09  
Roll Call Vote #: \_\_\_\_\_

**2009 HOUSE STANDING COMMITTEE ROLL CALL VOTES**  
BILL/RESOLUTION NO. 1475

House Education Committee

Check here for Conference Committee

Legislative Council Amendment Number \_\_\_\_\_

Action Taken  Do Pass  Do Not Pass  Amended

Motion Made By Rep Myxter Seconded By Rep Mueller

Representatives	Yes	No	Representatives	Yes	No
Chairman RaeAnn Kelsch		✓	Rep. Lyle Hanson	✓	
Vice Chairman Lisa Meier		✓	Rep. Bob Hunsakor	✓	
Rep. Brenda Heller	✓		Rep. Jerry Kelsh		
Rep. Dennis Johnson		✓	Rep. Corey Mock	✓	
Rep. Karen Karls	✓		Rep. Phillip Mueller	✓	
Rep. Mike Schatz		✓	Rep. Lee Myxter	✓	
Rep. John D. Wall		✓			
Rep. David Rust	✓				

Total (Yes) 8 No 5

Absent 1

Floor Assignment Rep Karls

If the vote is on an amendment, briefly indicate intent:

Referred to appropriations

REPORT OF STANDING COMMITTEE (410)  
February 4, 2009 11:41 a.m.

Module No: HR-21-1603  
Carrier: Karls  
Insert LC: . Title: .

### REPORT OF STANDING COMMITTEE

HB 1475: Education Committee (Rep. R. Kelsch, Chairman) recommends **DO PASS** and **BE REREFERRED** to the **Appropriations Committee** (8 YEAS, 5 NAYS, 1 ABSENT AND NOT VOTING). HB 1475 was rereferred to the **Appropriations Committee**.

2009 HOUSE APPROPRIATIONS

HB 1475

## 2009 HOUSE STANDING COMMITTEE MINUTES

Bill/Resolution No. 1475

House Appropriations Committee

Check here for Conference Committee

Hearing Date: February 12, 2009

Recorder Job Number: 9409

Committee Clerk Signature

*RaeAnn Kelsch*

Minutes:

**Chairman Svedjan:** This bill comes to us from House Education and it deals with Career & Technical Education Innovation Grants.

**Representative RaeAnn Kelsch, Chair of the House Education Committee:** This bill appropriates \$50,000 for Innovation Grants to CTE. During the last session, we appropriated money to CTE for the first time for Innovation Grants. CTE sent out RFPs (Request for Proposal) to schools and institutions across the state asking them to apply for a matching grant to be used for innovation technology activities in their schools. Basically the RFPs focus on robotics but it was also opened up to other innovative ideas. CTE awarded 23 matching grants to schools and colleges with the vast majority going to robotics activities. Every school that received these grants was very appreciative for the funding. For many of these schools it was their first venture into a robotics competition. Students got involved after school and weekends. Last session the appropriation was \$70,000. They provided almost \$74,000 in grants. They did have to reduce some of the grants and some weren't funded because they either missed the deadline or didn't have the match required. Representative Uglem brought this to our attention. The House Education Committee thought it was one of those issues for technology that we want to see continued in the State of North Dakota. This is where students are actually building something. That's why we thought it was a great idea.



**Representative Wald: Moved Do Pass.**

**Representative Thoreson: Seconded.**

**Discussion**

**Representative Skarphol:** I agree with the motion. I would suggest that we could handle this differently. I did talk to Representative Uglem. If this committee so desired and thought this was a right thing to do, that we could kill the bill and we get CTE in the second half and we could put the money in and save him the effort of going over on the Senate side, if we so desired, and talk about it in Conference Committee.

**Representative Berg:** I would like to see this passed out of the house. If it gets over to the Senate, and if we like the idea of consolidating them, maybe we can do that but get it over to the House so the Senate knows this is something we support.

A Roll Call vote was taken. **Yes: 20, No: 1, Absent: 4**, (Representatives Klein, Wieland, Williams, Kerzman).

**Representative RaeAnn Kelsch will carry the bill.**

Date: 2/12/09  
 Roll Call Vote #: 1471

2009 HOUSE STANDING COMMITTEE ROLL CALL VOTES  
 BILL/RESOLUTION NO. 1475

Full House Appropriations Committee

Check here for Conference Committee

Legislative Council Amendment Number \_\_\_\_\_

Action Taken No Pass

Motion Made By Wald Seconded By Thoreson

Representatives	Yes	No	Representatives	Yes	No
Chairman Svedjan	✓				
Vice Chairman Kempenich	✓				
Rep. Skarphol	✓		Rep. Kroeber	✓	
Rep. Wald	✓		Rep. Onstad	✓	
Rep. Hawken	✓		Rep. Williams		
Rep. Klein	✓				
Rep. Martinson	✓				
Rep. Delzer		✓	Rep. Glassheim	✓	
Rep. Thoreson	✓		Rep. Kaldor	✓	
Rep. Berg	✓		Rep. Meyer	✓	
Rep. Dosch	✓				
Rep. Pollert	✓		Rep. Ekstrom	✓	
Rep. Bellew	✓		Rep. Kerzman		
Rep. Kreidt	✓		Rep. Metcalf	✓	
Rep. Nelson	✓				
Rep. Wieland					

Total (Yes) 20 No 1

Absent 4

Floor Assignment Rep. L. Kalish

If the vote is on an amendment, briefly indicate intent:

**REPORT OF STANDING COMMITTEE (410)**  
February 13, 2009 7:00 p.m.

**Module No: HR-28-2814**  
**Carrier: R. Kelsch**  
**Insert LC: . Title: .**

**REPORT OF STANDING COMMITTEE**

**HB 1475: Appropriations Committee (Rep. Svedjan, Chairman) recommends DO PASS**  
**(20 YEAS, 1 NAY, 4 ABSENT AND NOT VOTING). HB 1475 was placed on the**  
**Eleventh order on the calendar.**

2009 SENATE EDUCATION

HB 1475

## 2009 SENATE STANDING COMMITTEE MINUTES

Bill/Resolution No. 1475

Senate Education Committee

Check here for Conference Committee

Hearing Date: March 2, 2009

Recorder Job Number: 9901

Committee Clerk Signature

Minutes:

Chairman Freborg opened the hearing on HB 1475. All members were present.

Representative Gerry Uglem testified in favor of the bill. See written testimony.

Senator Flakoll asked in what bill is the \$70,000.

Representative Uglem said it is in the Career and Technical Education budget bill.

Senator Taylor asked if it is his hope that all schools that apply would be able to get some funding.

Representative Uglem said yes and they might be able to increase funding to some projects.

Senator Bakke asked if this would be a continuing appropriation.

Representative Uglem said he hopes so, that would be up to the agency and appropriations.

Senator Lee said if this is a priority with Career and Technical Education, why isn't it included in their budget?

Representative Uglem said it is not one of their top priorities. It is on their optional list.

Senator Flakoll asked if there will be some federal stimulus money for this.

Representative Uglem said he has not heard of any stimulus money for these projects but it is

certainly a possibility.

Senator Taylor asked about First Lego League.

Representative Uglem said there is a description in his written testimony. They build a robot that must run for 2 ½ minutes. He has not been to a First Lego League but he has heard good reports.

Senator Lee asked if he has heard of a program called Destination Imagination, is this different? Is there a relationship?

Representative Uglem said he is not familiar with it.

Senator Freborg pointed out it is not a continuing appropriation, you can tell from the last line of the bill. He assumes it would be in the agency's budget next session.

Matt Strinden, Career and Technical Education, testified in favor of the bill. See written testimony.

Senator Lee said a fair amount of the innovation grants are given to colleges. If we are trying to encourage interest in science and math and engineering, why give money to the colleges?

Matt Strinden said they are working to focus more on K – 12. NDSU hosts the Bison Best which brings in high schools from across the state.

Senator Flakoll asked if the match is one to one.

Matt Strinden said yes.

Senator Flakoll asked how many worthy projects are not funded due to lack of funds.

Matt Strinden said many unfunded projects were because of incomplete grant applications or poorly written applications. If some appeared to be worthy, they asked the teacher to resubmit the grant application.

Senator Taylor asked how the funds are used.

Matt Strinden said the funds are primarily used for robotics kits. They cost about \$250 per kit and some programs need more than one kit due to the large amount of students involved.

Funds are also used for other materials, some travel or advisors.

Senator Bakke said when looking at years one and two, it appears as if it is mainly one time funding. Is this because the schools did not write a second grant application or because Career and Technical Education did not fund a program twice.

Matt Strinden said he has discussed this with Wayne Kutzer. Many schools assumed it was a onetime grant. They will get the message out to the schools.

Senator Flakoll asked if the number of students that participate in this program is available.

Matt Strinden said in many programs, there are larger numbers of students involved at the school and fewer students travel to the competitions. He was the principal at Northwood and was involved in their program. There were 25 – 30 students involved. Fewer students went to the competitions.

Senator Flakoll asked if it would be possible to find out how many students statewide are involved before the bill goes to appropriations.

Matt Strinden said he will compile the numbers.

Chairman Freborg closed the hearing on HB 1475.

Senator Flakoll moved a Do Pass and Rerefer to Appropriations, seconded by Senator Taylor.

Senator Flakoll said he likes the way this program gives academics a real world application in a nontraditional learning environment, especially in the STEM areas. It combines the classroom with business and industry.

Senator Lee said he will support the bill but wonders about the \$30,000 going to colleges. He hopes they will try to get the money to the younger students. He hopes Career and Technical Education includes this in their budget next session.

The motion passed 5 – 0. Senator Taylor will carry the bill.

Date: 3/2/09  
 Roll Call Vote #: 1

2009 SENATE STANDING COMMITTEE ROLL CALL VOTES  
 BILL/RESOLUTION NO. 1475

Senate Education Committee

Check here for Conference Committee

Legislative Council Amendment Number \_\_\_\_\_

Action Taken Do Pass and Refer to Appropriations

Motion Made By Sen. Flakoll Seconded By Sen. Taylor

Senators	Yes	No	Senators	Yes	No
Senator Freborg	✓		Senator Taylor	✓	
Senator Gary Lee	✓		Senator Bakke	✓	
Senator Flakoll	✓				

Total (Yes) 5 No 0

Absent 0

Floor Assignment Sen. Taylor

If the vote is on an amendment, briefly indicate intent:



**REPORT OF STANDING COMMITTEE**

**HB 1475: Education Committee (Sen. Flakoll, Chairman) recommends DO PASS and BE REREFERRED to the Appropriations Committee (5 YEAS, 0 NAYS, 0 ABSENT AND NOT VOTING). HB 1475 was rereferred to the Appropriations Committee.**

2009 SENATE APPROPRIATIONS

HB 1475

## 2009 SENATE STANDING COMMITTEE MINUTES

Bill/Resolution No. HB 1475

Senate Appropriations Committee

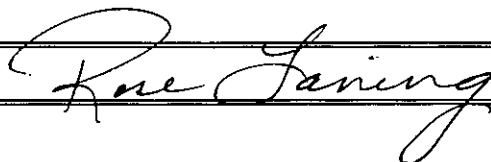
Check here for Conference Committee

Hearing Date: March 13, 2009

Recorder Job Number: 10894 - hearing

10895 - vote

Committee Clerk Signature



Minutes:

**Chairman Holmberg** called the committee hearing to order on HB 1475 relating to the department of career and technical education for innovation grants.

**Rep. Gerry Uglem, District 19**

Testified in favor of HB 1475. Written attached testimony # 1.

**V. Chair Bowman:** Does this money go to high schools or does it go to anyone who wants a grant because it looks to me like there are a lot of colleges. UND gets \$10,000; don't they have money in their own budget for projects in science?

**Rep. Gerry Uglem:** These are projects for high school students, but run through colleges.

**V. Chair Bowman:** So do they get grants to put out to high schools or do the grants stay within the college and the high schools work through the colleges on projects?

**Rep. Gerry Uglem:** They get the grant at the college and they provide the robotics kit for the high school to build their robot with and then they go to the college to compete.

**V. Chair Bowman:** Was that the same group that was up here earlier?

**Rep. Gerry Uglem:** That was the Northwood Robotics Club that I had the opportunity to mentor. That's the first program where they pay, I believe, \$4500 to \$5000 for a kit. They get

the kit, build their robot, along with other things and take it to competition in Minneapolis, Chicago, St. Louis, or Denver. That's done individually without college help, although college engineering students have come out to help mentor the individual high school programs. The total cost is something like \$15,000 a year by the time they figure in the travel for the competition.

**V. Chair Grindberg:** I assumed you worked with Department of Career and VoTech, do they provide any funding now for similar things like this or is this a new request for them to support this?

**Rep. Gerry Uglem:** This was new. Two years ago they provided \$70,000, and this is asking for an additional \$50,000 because we have so many requests.

**V. Chair Grindberg:** There is \$70,000 in budget now, so this would add it to \$120,000? and

**Rep. Gerry Uglem:** Yes, that is correct.

**V. Chair Grindberg:** The inventor of Segway model has started something a number of years ago has grown state by state getting kids involved with innovation. It's become a very successful model in the nation. We don't have a chapter called "First", I could be wrong on the name. Have you had any discussion with any of your schools about that type of an approach that rather than buying a kit, these kids have to invent everything themselves and do it through a collaborative process with a bunch of schools rather than a thousand dollars here and two thousand dollars there. Are you aware of anything of that nature?

**Rep. Gerry Uglem:** Yes, that's the program that Northwood is involved with and everybody gets a kit, but then you add to that kit. You have mentors, engineers, community members that work with these students. It's Northwood and Hatton working together on the project.

**Senator Christmann:** ITD budget – Isn't the money for this in Edu-tech or one of those programs in the ITD budget? Or is this not covered by those grants?

**Rep. Gerry Uglem:** I'm not aware of anything, but it's always possible.

**V. Chair Grindberg:** Have you made this request to your colleagues in House Appropriations Committee, because they have the bill – SB 2019, the Career and VoTech budget?

**Rep. Gerry Uglem:** They are aware of it. It was passed through the House.

**Chairman Holmberg:** The vote in the House was 92-1.

**V. Chair Grindberg:** So they didn't amend in \$50,000?

**Rep. Gerry Uglem:** I don't believe they have.

**Matt Strinden, Supervisor of Technology Education, Department of Career and Technical Education**

Testified in favor of HB 1475. Written attached testimony # 2.

**Chairman Holmberg** asked if anyone else would like to comment. Hearing none, he closed the hearing on HB 1475.

**HB 1475 – vote**

**Senator Wardner moved Do Pass.**

**Senator Seymour seconded.**

**Senator Wardner:** My experience in education, this type of activity really can make an impact on “at risk” students. Many are mechanical, many of them enjoy this type of thing and I think it's a reason for them to get high on education. Something like this would appeal to very smart kids because it's mechanical. It's sad they drop out of school and I think we should put a lot more resources into a program like this. I'm in complete support of this.

**Chairman Holmberg:** Could this fall under the STEM initiatives (Science, Technology, Engineering, Math), because we seem to track that.

**A Roll Call vote was taken. Yea: 12 Nay: 1 Absent: 1.**

**The bill will go back to the Education committee and Senator Taylor will carry the bill.**

Date: 3-13-09

Roll Call Vote # 1

2009 SENATE STANDING COMMITTEE ROLL CALL VOTES  
BILL/RESOLUTION NO. 1495

Senate Senate Appropriations Committee

Check here for Conference Committee

Legislative Council Amendment Number \_\_\_\_\_

Action Taken  Do Pass  Do Not Pass  Amended

Motion Made By Wardner Seconded By Seymour

Senators	Yes	No	Senators	Yes	No
Sen. Ray Holmberg, Ch	✓		Sen. Tim Mathern	✓	
Sen. Tony S. Grindberg, VCh	✓		Sen. Aaron Krauter	✓	
Sen. Bill Bowman, VCh	✓		Sen. Larry J. Robinson	✓	
Sen. Randel Christmann	✓		Sen. John Warner	✓	
Sen. Rich Wardner	✓		Sen. Elroy N. Lindaas	A	
Sen. Ralph L. Kilzer		✓	Sen. Tom Seymour	✓	
Sen. Tom Fischer	✓				
Sen. Karen K. Krebsbach	✓				

Total Yes ~~12~~ 12 No 1

Absent 1

Floor Assignment Education Committee Taylor

If the vote is on an amendment, briefly indicate intent:

**REPORT OF STANDING COMMITTEE (410)**  
**March 13, 2009 10:58 a.m.**

**Module No: SR-46-4787**  
**Carrier: Taylor**  
**Insert LC: . Title: .**

**REPORT OF STANDING COMMITTEE**

**HB 1475: Appropriations Committee (Sen. Holmberg, Chairman) recommends DO PASS**  
**(12 YEAS, 1 NAY, 1 ABSENT AND NOT VOTING). HB 1475 was placed on the**  
**Fourteenth order on the calendar.**

2009 TESTIMONY

HB 1475



Attachment 1

## Chairman Kelsch & education committee members

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I am Gerry Uglem, District 19 Representative.

Two years ago, with the help of appropriations we set up a new grant opportunity for grade and high school robotics programs. \$70,000 was made available through ND Career and Technical Education – “Grants for Innovation”.

My goal at the time was to help high schools with The First Robotics program, and NDSU with the “Best” robotics program.

Today we have four colleges setting up some type of program, as well as grade schools and high schools involved. There are more requests for grants than there are funds available.

I have had the opportunity to mentor the Northwood First Robotics club, and have seen how this type of activity fires up our students about science and math. I believe this is one of the best ways to encourage our students to consider engineering or science major when they get to college.

HB 1475 asks for an additional \$50,000 for these robotics programs. I would appreciate you giving it serious consideration.

Thank you Chairman Kelsch.

**Request for Proposals 2008-09**  
**North Dakota Career and Technical Education**  
**Request for Proposals: Grants for Innovation**

**Title:** Grants for Innovation

**Eligible Recipients:** Elementary or secondary teachers or schools and institutions of higher education.

**Proposal Deadline:** Must be received in this office by September 19, 2008.

**Total Funds Available:** \$35,000

**Allocation of Funds:** Grants awarded to an elementary or secondary teacher or school may not exceed \$2,000 and grants awarded to an institution of higher education may not exceed \$10,000. Dollar-for-dollar matching funds for grant recipients may come from a public source, a private source or any combination of public and private sources. Projects may begin upon approval. Projects must be completed, and all invoices dated no later than May 1, 2009. Final reports and claims will be due on June 1, 2009.

**Goal/Purpose:** To provide new, innovative science, technology or innovation programs for students in kindergarten through grade twelve.

**Activities:** Proposals could focus on one of the following:

**1. Junior First Lego League (JFLL)**

JFLL is a fun, powerful program for 6 to 9 year-olds introducing basic design and research skills. Teams are comprised of up to 6 children and an adult coach.

**2. First Lego League (FLL)**

FLL is a robotics program utilizing Lego Mindstorms technology for children 9-14 years old. An FLL team has a minimum of 3 and a maximum of 10 children and an adult coach.

**3. First Vex Challenge (FVC)**

FVC is a robot planning, building, programming and refining program aimed at high school aged students. A team consists of a maximum of 10 students and a minimum of 1 adult team coach.

**4. BEST Robotics**

Each participating school is provided an identical kit of equipment and parts, a set of game rules, and is given six weeks to design, build, and test a Radio Controlled robot that outperforms other robots.

**5. Other innovative science, technology, or innovation programs**

**Format:** Proposals should not exceed 3 pages, 12 pt. font. Please include the following:

**1. Description of participant(s)**

The description should include the number of planned participants, who the target participants will be (grade level, M/F, school and district), and the teachers, coaches or mentors that are involved.

**2. Description of activity**

The description should include details of all activities planned including starting and ending dates and contests to be entered, if applicable.

**3. Matching funds**

Describe all matching funds that will be used to implement this project. (This grant requires a dollar for dollar match.) Both the total amount of the grant request and the matching funds - along with their source - must be shown within the proposal.

**4. State forms**

Complete and attach forms SFN 15275, Funding Application Budget, SFN 5274, Funding Application Cover Sheet and SFN 15263, Equipment and Instructional Materials to the application. They can be found at <http://www.nd.gov/cte/forms> and will not count against the three page limit.

**A Final Report will be required that includes a brief (one half to one page) description of activities, outcomes, and number of students involved.**

**Selection Criteria:** All applications will be reviewed to determine appropriateness, completeness and innovation. Acceptable applications will be funded on a first-come, first-served basis until all funds (\$35,000) are allocated.

**Expenditures:** Funds may be used for equipment, consumables, travel, and registration fees. Funds may NOT be used for purposes of supplanting state and local funds and thus cannot be used to fund existing programs.

**Proposals (by mail or e-mail) must be received by 5:00pm, September 19, 2008.**

**Send to:**

Wayne Kutzer, State Director  
Career and Technical Education  
600 East Boulevard Ave., Department 270  
Bismarck, ND 58505-0610  
[cte@nd.gov](mailto:cte@nd.gov)

777-4151

Bruce JOVER 11/23/07 letter for innovation

## Innovation Grants 2007-2008

School	Contact Person	Description	Requested Amount	Approved Amount
Apple Creek 39 – Bismarck	Charlotte Knittel	First Lego League	2000.00	590.00
Beulah-Middle School	Al Leiberspach	First Lego League	3033.01	1500.00
Fargo/NDSU	Gary R. Smith	Bison BEST Robotics	10,000.00	10,000.00
Fort Totten – Spirit Lake	Dr. Wayne Trottier	First Lego League	1000.00	1000.00
Grafton – High School	Jack Maus	First Tech Challenge	1341.95	1342.00
Grafton – Middle School	Jack Maus	Great Plain Lego League	1360.00	1360.00
Grand Forks – Ben Franklin	Dr. Beth Randklev	First Lego League	3090.00	1100.00
Grand Forks – Central	Dr. Jerome Gunderson	BOE-BOT Robotics	3960.00	1980.00
Grand Forks – Red River	Dr. Jerome Gunderson	BOE-BOT Robotics	3960.00	1980.00
Grand Forks – UND	Greg Weisenstein	Power ON	10,000.00	10,000.00
Northwood – Hatton	Mike Voglewede	Thunder Robotics	2000.00	2000.00
Robert Miller Elem. - Bismarck	Vivian Meiers	First Lego League	1000.00	1000.00
Rugby	Jeff Lind	Robotics Education	1200.00	1200.00
			<b>TOTAL</b>	<b>35,052.00</b>

## Innovation Grants 2008-2009

School	Contact Person	Description	Requested Amount	Approved Amount
Fargo Public Schools- Kennedy Elementary	Maggie Mitzel	First Lego League	965.00	965.00
Fargo/NDSU	Gary R. Smith	Bison BEST Robotics	10,000.00	10,000.00
Fort Totten – Four Winds School	Dr. Wayne Trottier	First Lego League	2000.00	2000.00
Grafton – Middle School	Jack Maus	Great Plain Lego League	860.00	860.00
MSU-Bottineau	Aimee Erdman	Tech Competitions <i>GPS/web design/Computer math</i>	2100.00	1800.00
Grand Forks – Schroeder MS	Dr. Jerome Gunderson	Gateway to Technology <i>PLTW - High Schools</i>	2000.00	2000.00
Grand Forks – UND	Manohar Kulkarni <i>777-4700</i>	Virtual Science Labs (Online) <i>Physics</i>	10,000.00	10,000.00
Bismarck State College	JoDe Knudson	<del>Elementary Science Olympiad</del>	10,000.00	7200.00
Rock Lake	Lisa Ramey	First Lego League	2000.00	2000.00
Williston- Garden Valley School	Lori Olson	BEST Robotics	2000.00	2000.00
			<b>TOTAL</b>	<b>38,825.00</b>

*Next Years 2nd Budget.*

House Education Committee  
Testimony on HB 1475  
January 27, 2009

Madam Chair and members of the committee, my name is Wayne Kutzer, Director of the Department of Career and Technical Education.

HB 1475 has provided much appreciated innovation grants to schools. Last session was the first time that our agency received innovation grants. In September of the past two years we sent an RFP out to schools and institutions across the state asking them to apply for a matching grant to be used for an innovative technology activity in their school. I have attached a sample of the RFP that was sent out.

The RFP focused on robotics but it was also opened to other innovative ideas. We awarded 23 matching grants to schools and colleges with the vast majority going to robotics activities. Every school that we received comment back from was appreciative for the funding. For many schools this was their first venture into robotics competition. The time and commitment that individual teachers and coaches spend on this project with students is so important even beyond the activity itself. Students got involved, working after school and weekends on their robots. Nearly every school told us that because students wanted to keep working into the night, they had to tell the students to go home.

We received \$70,000 last session and provided almost \$74,000 in grants. We did have to reduce some grants and there were still others that weren't funded at all because they missed the deadline or didn't have the match required. The demand is there and it's growing. This bill will add another \$50,000 for a total of \$120,000 or \$60,000 each year.

I ask for your support of HB 1475 and would be glad to answer any questions that you may have.

# HB 1475

*Same  
given to Smab  
appropriations*

## Chairman Freborg & education committee members

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I am Gerry Uglen, District 19 Representative.

Two years ago, we set up a new grant opportunity for grade and high school robotics programs. \$70,000 was made available through ND Career and Technical Education – “Grants for Innovation”.

My goal at the time was to help high schools with The First Robotics program, and NDSU with the “Best” robotics program.

Today we have four colleges setting up some type of program, as well as grade schools and high schools involved. There are more requests for grants than there are funds available. Attached to the back of my testimony you will find where the grants went this past biennium. The other handout gives information about three of the programs these grants support.

I have had the opportunity to mentor the Northwood First Robotics club, and have seen how this type of activity fires up our students about science and math. I believe this is one of the best ways to encourage our students to consider engineering or science major when they get to college.

HB 1475 asks for an additional \$50,000 for these robotics programs. I would appreciate you giving it serious consideration.

Thank you Chairman Freborg.



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who we are

what we do

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already involved

quick links

What We Do : FRC

What it is

How it Works

Get Involved

Events in My Area

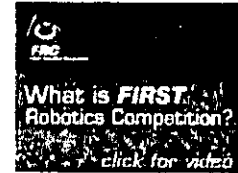
Impact

Already a team?

Already a mentor,  
volunteer or coach?

Click to Community >>

Home > What We Do > FIRST Robotics Competition > What It Is



What is FRC?

FIRST Robotics Competition (FRC) is a unique varsity sport of the mind designed to help high-school-aged young people discover how interesting and rewarding the life of engineers and researchers can be.

The FIRST Robotics Competition challenges teams of young people and their mentors to solve a common problem in a six-week timeframe using a standard "kit of parts" and a common set of rules. Teams build robots from the parts and enter them in competitions designed by Dean Kamen, Dr. Woodie Flowers, and a committee of engineers and other professionals.

FIRST redefines winning for these students because they are rewarded for excellence in design, demonstrated team spirit, gracious professionalism and maturity, and the ability to overcome obstacles. Scoring the most points is a secondary goal. Winning means building partnerships that last.

What is unique about the FRC program?

- It is a sport where the participants play with the pros and learn from them
- Designing and building a robot is a fascinating real-world professional experience
- Competing on stage brings participants as much excitement and adrenaline rush as conventional varsity tournaments
- The game rules are a surprise every year

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Rep. Uglem 1475 3/2/09



# FIRST Robotics Competition

From Wikipedia, the free encyclopedia

The **FIRST Robotics Competition** is a high school robotics competition organized by FIRST. As of early 2007, 1,303 high school teams of 32,500<sup>[1]</sup> students from Brazil, Canada, The Netherlands, Israel, the United States, the United Kingdom, Mexico, and others compete to build 100 to 120 pound robots that can complete a task that changes every year. Teams are given a standard set of parts and the game details at the beginning of January and are given six weeks to construct a competitive robot that can accomplish the game's tasks.<sup>[2]</sup> In 2008, teams competed in 41<sup>[1]</sup> regional competitions throughout March to try and qualify for the championship event in Atlanta, Georgia in April. Previous years' championships have been held in Houston, Texas and at Epcot in Walt Disney World.<sup>[3]</sup>

## Contents

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## Competition concept

The FIRST Robotics Competition involves teams of mentors (corporate employees, teachers, or college students) and high school students who collaborate to design and build a robot in six weeks. This robot is designed to play a game, which is designed by FIRST and changes from year to year. This game is announced at a nationally simulcast kickoff event in January.<sup>[4]</sup> Regional competitions take place around the United States as well as in Canada and Israel, but FIRST has a multinational following that further includes the United Kingdom, Brazil, Australia, and Germany.<sup>[5]</sup>

Teams are expected to solicit local businesses for support in the form of donations of time, money, or skills. The average team has approximately 25 students, but participation have ranged from 4 to 100.<sup>[6]</sup>

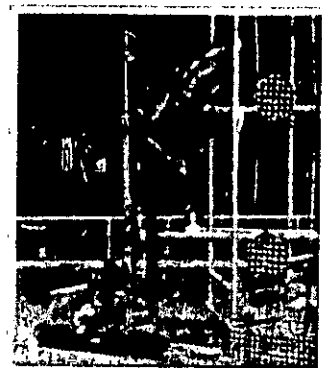
## Competition details



Intermission during Aim High in Los Angeles, encouraging teams to socialize

The competition is a yearly event. The most intense participation occurs between the months of January and April, but "mini-competitions" are hosted by many teams in school gymnasiums throughout the year.<sup>[7]</sup> In early January, FIRST announces the details of a game to all participating teams. The game changes very much from year to year, with only a few rules such as the approximate size of the robot staying the same.<sup>[8]</sup>

For the next six weeks following the kickoff, called the "build season," the teams begin to design a robot to play the game, essentially from scratch. Team members spend the time designing



"Raptor", Team 254's 2007 FRC robot.



Competition at the 2008 Hawaii regionals.



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**About BEST**

- What is BEST?
- How BEST Works
- History
- Testimonials
- Board of Directors
- Advisory Council
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- BEST Apparel
- Privacy Policy

**The Game**

- 2008 Theme/Story Line
- Official Q&A
- Official Documents
- 1993-2008 Game Summaries
- BEST Game Videos

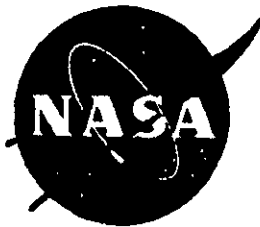
**Hubs & Regionals**

- Map & Locations
- Information and Events
- Start A New Hub
- New Hub Workshop

**All Files**

- Teacher/Team Resources
- Scholarship
- Partners
- Links
- BEST News

**BEST Students - Join NASA's INSPIRE Program**



**What Is BEST?**

BEST is a non-profit, volunteer-based organization whose mission is to inspire students to pursue careers in engineering, science, and technology through participation in a sports-like, science and engineering-based robotics competition.

**BEST FACTS**

- BEST Robotics Inc. (BRI) is a non-profit, volunteer organization based in Dallas, TX. Started in 1993 with 14 competing schools and 221 students, today BEST has over 700 middle and high schools and over 10,000 students participating each fall.
- There is no fee for schools to compete in BEST.
- BEST features two parallel competitions:
  - A robotics game, which is based upon an annual theme with four teams competing at once in a series of three-minute, round-robin matches.
  - The BEST Award, which is presented to the team that best embodies the concept of Boosting Engineering, Science, and Technology. Elements include a project summary notebook, oral presentation, table display, and spirit and sportsmanship.
- Each school is provided kits of equipment and parts, a set of game rules, and given six weeks to design, build, and test a small Radio/Controlled (R/C) robot that outperforms other robots.
- Winning teams from local competition sites (called "hubs") advance to regional championship sites ("regionals").
- Engineers and other technical professionals from local industries serve as team mentors who advise and guide students through the design and construction of their machines.
- Anyone—colleges/universities, corporations, individuals—can start a new hub serving a minimum of eight teams. The average first-year cost for running a 24-team hub is approximately \$28,000.
- Local hubs rely on financial support from corporations and/or colleges/universities in order to allow schools to participate at no cost.

**ORGANIZATIONAL GOALS**

- Promote the growth of hubs across the U.S., thus maximizing the "pipeline" of future engineers, scientists, and technical professionals.
- Increase participation of women and minority students in rural and inner city schools.
- Enlist more colleges/universities and corporations to become collaborative educational partners with BEST.

**ATTRIBUTES OF THE COMPETITION**

- Enhances teaching/teacher effectiveness
- Reinforces classroom learning
- Creates real-world academic challenge
- Increases students' interest in and understanding of engineering and science
- Exposes students to new career opportunities

**BEST Moments**



**SolidWorks Models  
SolidWorks STEM  
Teacher Blog  
Best Inc. Message  
Board**

**Regional Events**

**Frontier Trails BEST  
Dec 5-6, 2008**

**South's BEST  
December 12-13, 2008**

**Texas BEST  
Nov 14-15, 2008**

**Check out RobotEvents  
Robotics Competitions**

**Take the JETS National  
Engineering Design  
Challenge!**

Learn which Engineering field is BEST for you!

**BEST Supporters**



- Provides competition/fun
- Promotes school spirit and sense of community

#### **BENEFITS TO STUDENTS**

- Increases understanding of technical concepts and scientific principles
- Provides real-world engineering experience with limited resources
- Reinforces project management concepts with constrained time period
- Encourages abstract thought, self-directed learning, and problem solving
- Promotes team building, good sportsmanship, leadership, and ethical conduct
- Produces pride in success

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- Overview
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- Schedule
- Register a Team
- The Challenge
- Overview
- The Project
- The Game
- Game Q&A Blog
- Judge's Blog
- Consultants
- Past Challenges
- Awards

## Welcome to FIRST LEGO League

FIRST LEGO League (FLL) is a global program created to get kids excited about science and technology. Geared for ages 9-14 (up to 16 outside of the U.S. and Canada), FLL utilizes theme-based Challenges to engage kids in research, problem solving, and engineering. The cornerstones of the program are its **Core Values**, which emphasize contributions of others, friendly sportsmanship, learning, and community involvement.

Each annual Challenge has two parts, the **Project** and the **Robot Game**. Working in teams of up to 10 kids and guided by at least one adult coach, team members have about 10 weeks to:

- Build an autonomous robot that will, in 2 minutes and 30 seconds, complete pre-designed missions
- Analyze, research, and invent a solution for a given assignment
- Create a clever presentation about their solution to perform in front of a panel of judges

The culmination of all that hard work for many teams is the participation in an FLL event. FLL events are much like sporting events! Referees monitor and score the robot game. Judges review team presentations. Teams earn awards and trophies. It's a pumped-up environment with music and excitement, and there is a ton of cheering.

**Global Sponsors:**



On top of that, teams can use this web site to broaden communication and enrich their FLL experience.

**Let's Go...**

FLL is in over 50 countries managed by regional volunteers called Operational Partners. Use this site to communicate with FLL teams around the world sharing ideas and information through our [FLL Country Forums](#).

From finding resources to chatting about the latest FLL developments, you can use the site to stay connected. Visit [Site Help](#) for common site usage questions.

Not on a team? [Start your own team](#).

Read about real experiences and stories from program participants! Stories are highlighted throughout the site, and you can talk to participants in the [Forum](#).

Can't find what you are looking for here? Go ahead and [Contact Us](#), we're here to help! For a contact in your local area, visit [Regional Contacts](#).

FLL is part of the continuum at FIRST and the result of a partnership between FIRST and The LEGO Group. In 1998, FIRST Founder, [Dean Kamen](#), and The LEGO Group's [Kjeld Kirk Kristiansen](#) joined forces to create FIRST LEGO League (FLL).

Use the **FIRST Quick Links** navigation at the top of the page to explore more about FIRST.



FIRST gave me an excellent opportunity to learn about robotics and engineering, and taught me teamwork, problem-solving, programming, and gracious professionalism.  
Erin, FLL team member

**Latest BLOG Posts**

**Behind-The-Scenes: FLL In Your Region**  
POSTED: 1/19/2009  
BY: first

**Nominate Your Coach!**  
POSTED: 1/7/2009  
BY: first

**Project FAQ Clarification**  
POSTED: 12/15/2008  
BY: first

**Game Ruling 45**  
POSTED: 12/11/2008  
BY: first

**Observations of a Tech Judge**  
POSTED: 12/5/2008  
BY: first

**FRC Competition**



Senate Education Committee  
Testimony on HB 1475  
March 2, 2009

Mr. Chairman and members of the committee, my name is Matt Strinden, Supervisor of Technology Education with the Department of Career and Technical Education.

The 2007 Legislature first provided our agency with innovation grants in CTE and in that time HB 1475 has provided much appreciated funding for innovative programs to schools. In September of the past two years our department sent an RFP to schools and institutions across the state asking them to apply for a matching grant to be used for an innovative technology activity in their school.

The RFP focused primarily on robotics but other innovative ideas were also open for consideration. We have awarded 24 matching grants to schools and colleges with the vast majority going to robotics activities. Comments received back from participating schools showed a great appreciation for the funding and this was the first venture into robotics competition for many schools. The time and commitment that individual teachers and coaches spend on this project with students is so important even beyond the activity itself. Students got involved, working after school and weekends on their robots. Nearly every school that participated informed us that the students were so excited about the activities they wanted to keep working well into the evening. In many cases they had to tell the students to go home, much to their dismay. This marriage of CTE and STEM education is a perfect fit for encouraging our students to engage in science and technology initiatives and support their interest in these areas.

Our department received \$70,000 last session and provided almost \$74,000 in grants. We did have to reduce some grants and there were still others that weren't funded at all because they missed the deadline or didn't have the match required. The demand for these grants is there and continues to grow each year. This bill will add another \$50,000 of much needed funds for a total of \$120,000 or \$60,000 each year. Therefore, I ask for your support of HB 1475 and would be glad to answer any questions that you may have.

Senate Appropriations Committee  
Testimony on HB 1475  
March 13, 2009

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Our department received \$70,000 last session and provided over \$75,000 in grants. Some grants were reduced due to shortage of funds and there were still others that weren't funded at all because they missed the deadline or didn't have the match required. The demand for these grants is there and continues to grow each year. This bill will add another \$50,000 of much needed funds for a total of \$120,000 or \$60,000 each year. These grants have been instrumental in encouraging students to pursue Math and Science in K-12 schools. Therefore, I ask for your support of HB 1475 and would be glad to answer any questions that you may have.

**Innovation Grants  
2008-2009**

<b>School</b>	<b>Contact Person</b>	<b>Description</b>	<b>Requested Amount</b>	<b>Approved Amount</b>
Fargo Public Schools- Kennedy Elementary	Maggie Mitzel	First Lego League	965.00	<b>965.00</b>
Fargo/NDSU	Gary R. Smith	Bison BEST Robotics	10,000.00	<b>10,000.00</b>
Fort Totten – Four Winds School	Dr. Wayne Trottier	First Lego League	2000.00	<b>2000.00</b>
Grafton – Middle School	Jack Maus	Great Plain Lego League	860.00	<b>860.00</b>
MSU-Bottineau	Aimee Erdman	Tech Competitions	2100.00	<b>1800.00</b>
Grand Forks – Schroeder MS	Dr. Jerome Gunderson	Gateway to Technology	2000.00	<b>2000.00</b>
Grand Forks – UND	Manohar Kulkarni	Virtual Science Labs (Online)	10,000.00	<b>10,000.00</b>
Bismarck State College	JoDe Knudson	Elementary Science Olympiad	10,000.00	<b>7200.00</b>
Rock Lake	Lisa Ramey	First Lego League	2000.00	<b>2000.00</b>
Williston- Garden Valley School	Lori Olson	BEST Robotics	2000.00	<b>2000.00</b>
Robert Miller Elem. Bismarck	Vivian Myers	First Lego League	2000.00	<b>2000.00</b>
			<b>TOTAL</b>	<b>40,825.00</b>