

CLEVELAND PUBLIC LIBRARY

Special Board Meeting

August 9, 2018

**RESOLUTION AUTHORIZING PARTNERSHIP AGREEMENT WITH
EXPERIENCE AVIATION INC.**

WHEREAS, Experience Aviation Inc. is a Florida-based non-profit organization that was founded by Captain Barrington Irving with the mission of introducing young people to career opportunities in aviation and STEM-related fields; and

WHEREAS, Experience Aviation has developed a curriculum of hands-on workshops where students work together on projects such as assembling automobiles and small aircraft. Experience Aviation has held successful workshops in several major cities including, Atlanta, Dallas, Detroit, Houston, and Miami; and

WHEREAS, Experience Aviation has proposed a five-week program where twenty to thirty Cleveland Metropolitan School District (“CMSD”) students would work together under the guidance of a project engineer to assemble a vehicle at the Tri-C Campus; and

WHEREAS, Experience Aviation has approached the Library to consider a partnership whereby Experience Aviation will make the finished vehicle available to the Cleveland Public Library for various library programs and outreach opportunities, including the Library’s Mini Maker Faire, in exchange for the sum of \$35,000; and

WHEREAS, The Library finds that this partnership opportunity is consistent with its mission to be the center of learning for a diverse and inclusive community; now therefore be it

RESOLVED, That the Board of Trustees authorizes the Executive Director, CEO, or his designee, to negotiate and execute a partnership agreement with Experience Aviation Inc. consistent with the terms of this Resolution in the amount of \$35,000, with the expenditure being charged to the Founders fund account 20380103-53710 (Professional Services), which agreement shall be subject to the approval of the Library’s Chief Legal Officer.

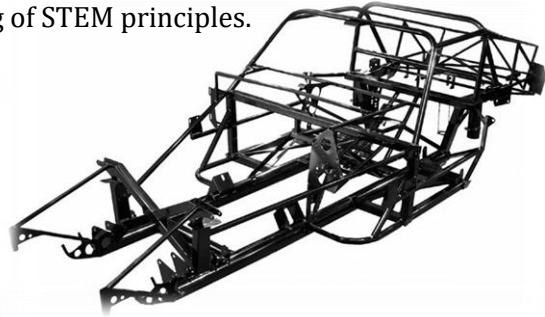
EXPERIENCE AVIATION & THE CLEVELAND COMMUNITY

1. GOAL

To enhance STEM (Science, Technology, Engineering and Math) engagement and skills of at-risk disadvantage students within the Cleveland Community by providing a cutting edge innovative project that will empower students as well as inspire the local community.

Students will achieve the following exclusive opportunities:

- i. Exposure and access to cutting edge STEM careers.
- ii. A motivating experience to realize potential and aptitude in performing STEM assignments.
- iii. Investigation and problem solving of STEM principles.
- iv. Hands-on project based learning.



2. PROJECT DESIGN

- i. Experience Aviation will challenge Cleveland students to restore a STEM vehicle over the course of 5 weeks. This specific car design is produced by a North American company Factory Five Racing, Inc.
- ii. A lead engineer from the Experience Aviation team will provide instructional support to all participants through this project based learning activity.
- iii. The Experience Aviation lead engineer is fully certified with over 6 years of research and development to construct all car models from the Factory Five Racing fleet. Here are some highlights of successful car builds operated by Experience Aviation and its lead engineer:

1. *Miami Florida, GTM Super Car – in 2012 we challenged 40 students to construct a supercar that performs at 215mph. A car that accelerates from 0-60mph in just 2.7 seconds.*



2. *Dallas Texas, STEM “818” Car – in 2014 Experience Aviation partnered with the Lancaster Independent School District along with Texas Instrument to construct a STEM car with 60 high school CTE students. Lancaster ISD initiative in partnering with Experience Aviation was to incorporate more hands-on projects within their district. On completion of this car, we were able to celebrate its success along with students by leading the annual Dallas Texas parade.*



3. *Houston Texas, STEM “818” Car – in 2015 Experience Aviation partnered with the Lamar School District to construct a STEM car along with 40 high school CTE students. Before the inception of the Experience Aviation car build the Lamar School District was facing a low percentage of student interest within their CTE automotive program. Upon completion of the car build the Lamar School District as a result was able to successfully gauge the interest of over 200+ CTE students registering for automotive classes.*



4. Atlanta Georgia, Daytona 65 Replica Car – in 2016 Experience Aviation partnered with DeKalb County School District along with Ford Motor Company Fund to work with 40 middle and high school students. These students were able to construct a replica of the 1965 Daytona Coupe with an impressive Ford 302 engine design. The car and students were recently featured at the DeKalb County School Board meeting to celebrate all their success.



5. Detroit Michigan, Daytona 65 Replica Car – in 2017 we completed our most recent Build and Soar car project in partnership with the Detroit Public School and Ford Motor Company. Detroit challenged 50 students from their high school automotive program to build a Daytona coupe from scratch. The completed car was unveiled at Ford Motor Company headquarter in Detroit Michigan. The car successfully completed a performance race on Ford's test track.



3. ACADEMIC COMPONENT AND SKILLS OBTAINED:

- *Develop interpersonal skills, leadership skills, written communication skills, responsible work ethic, develop skills needed to enter the workforce.*
- *Read / interpret written materials, understanding of vehicle systems, safety procedures, demonstrate proper automotive shop safety practices etc.*
- *Effective critical thinking, decision making, and problem solving techniques.*
- *Proper use of automotive tools, power tools and equipment.*
- *Riveting, sheet metal, engine systems, transmission functionality, internal car components and electrical wiring.*
- *Vehicle diagnostics, control systems, proper installation of car fluids, and interior design.*
- *Student analyzes the processes to paint, body work and refinish a vehicle.*

4. OUTSTANDING LOGISTICAL ITEMS

Student Demographic

- i. Predominantly at risk students of low socioeconomic status students located within the Cleveland Community area schools. Majority of students on free or reduced lunch.

Recruitment of Students (20 - 30 students)

- ii. The Cleveland Community area schools will be responsible for recruiting students to participate on the Build and Soar project. The project will require full commitment from students in order to successfully accomplish the mission.
- iii. Women in STEM. Experience Aviation would like to possibly see at least 20% of the students to be young women. Based on our experience of builds young women perform exceptionally well even when competing against young men.

Schedule & Student Total

- iv. Proposed Schedule
 - Monday – Thursday during the school calendar session. 9 am – 2:30 pm. This schedule can be modified to address both the community and Experience Aviation’s schedule.
- v. Program start date to be determined by the Cleveland Community and Tri-C Community College site. Construction will take place in June however facility may be available in July. Exact date will need to be determined by the college.
- vi. Only 4-5 participants will work directly on the car and separated into various group rotations structured by Experience Aviation.

- vii. Each group of students will work on the car during different phases. The remaining student participants will work with Tri-C Community College through supplemental automotive activities such as disassemble and reassemble lawn-mower engines to understand engine functions etc. (See [sample syllabus below](#))
- viii. Lunch Logistics.
 - How will student daily Lunch be incorporated? Where will lunch take place and who will provide daily meals for students?
- ix. Transportation
 - How will students be transported to the car build facility? Will transportation be provided by parents individually or by school bus? Transportation will need to be determined by the Cleveland Community area schools.
- x. Other Responsibilities amongst the Cleveland Community
 - Recruitment of the students
 - Filming of the Car Build
 - Race event held at Burklake Front Airport.
 - Media Coverage
 - Congressional Involvement

Sample Syllabus for group rotation

- i. Week 1:
 - a. Auto-motive safety and the workshop environment functionality
 - b. Proper use of automotive tools, power tools and equipment.
 - c. Dissassemble and reassemble small block Law-Mower engines
- ii. Week 2:
 - a. Group works on the GTM super car
- iii. Week 3:
 - a. Riveting, sheet metal and electrical wiring activities
- iv. Week 4:
 - a. Group works on the GTM super car
- v. Week 5:
 - a. Vehicle diagnostics, control systems, proper installation of car fluids, and interior design
 - b. Final touches for product showcase to the Cleveland Community

Logistics

- vi. Experience Aviation will order all necessary parts
- vii. Experience Aviation will coordinate all necessary tools, services and logistics as it relates to successfully completing the car build.
- viii. The Cleveland Community will identify building space, coordinate schedule of students, provide one adult who can supervise the students as the building occurs with the lead instructor.
- ix. Upon inspection of site visit by the Experience Aviation team, other logistics will be discussed and coordinated.

Community Outreach & PR

- x. After further discussions and site visit by Experience Aviation team a customized media / race car unveiling event will be created. In addition, other customized events can be made possible. The purpose is to honor the accomplishment of students and to recognize STEM education within The Cleveland Community.
- xi. The Cleveland Public Library will have access to the finished vehicle at 2-3 outreach events within a designated 2-week time frame ending on November 3rd, the date of the Library’s annual Mini Maker Faire Celebration.
 - i. An Experience Aviation representative will participate in 2 outreach events during the 5-week session at the Cleveland Public Library.

5. PROJECT BUDGET

Consultant Services	Cost
Program Manager Consultant: includes the following: Coordinating all programmatic components such as: orders, part coordination, recruitment orientation, budgets, preparation for project launch, build schedules, ordering program supplies / materials, and ensuring a high quality implementation of the GTM supercar hands-on project to fulfill the Experience Aviation’s and the Cleveland Community mission.	\$7,000
Lead Engineer Consultant: will provide daily instruction on how to renovate the GTM supercar hands-on project challenge. Lead Engineer is positioned to providing students with 21st Century Skills, instruct on complex subject matter, empower students to take on each challenge of the build, make the experience fun and instill discipline.	\$10,998.00
Project Parts and Supplies	
	Cost
Car parts, supplies, materials and equipment	\$15,747.87

Transportation and Lodging Expenses	Cost
RV park cost and utilization expenses over the duration of 5 weeks. Also includes fuel and milage cost to transport the RV to and from Cleveland	\$2,596.50
Auto transportation of the GTM car from Miami, FL to Cleveland, Ohio. Approximately 1300 miles	\$1,100.00
Auto transportation of the GTM car from Cleveland, Ohio to Miami, FL. Approximately 1300 miles	\$1,100.00
Flight Transportation: Lead Engineer Consultant – \$350 round trip ticket. 1 trip	\$350.00
Hotel: Program Manager Consultant - \$139 x 3 nights x 4 weeks	\$1,668.00

Flight Transportation: Program Manager Consultant - \$350 round trip x 4 weeks	\$1,400.00
Captain Barrington Irving 2 trips, 4 Days Total: Hotel = \$556, Flight = \$700	\$1,256.00
Overall Project Total	\$43,216.37

Fundraising Goal	Cost
Overall Project Total	\$43,216.37
Cleveland Public Library Commitment	\$35,000.00
Total Remaining to be fundraised	\$8,216.37