MEMORANDUM OF UNDERSTANDING

BETWEEN

CHICAGO HOUSING AUTHORITY

AND

THE

ARTHUR M. BRAZIER FOUNDATION

MEMORANDUM OF UNDERSTANDING

The Parties entering into this Memorandum of Understanding ("MOU"), effective as of September _____, 2016, by and between **The Chicago Housing Authority** ("CHA") – An Illinois municipal corporation organized under the Illinois Housing Authority Act 310 ILCS 10/1 et seq., with offices at 60 E. Van Buren St., Chicago, Illinois and **The Arthur M. Brazier Foundation** ("AMBF" or the "Foundation") – A Chicago-based community building foundation, a 501c3 organization.

Section 1: Definitions

a. "Project" means the creation, funding and development of a state of the art robotics manufacturing line and training facility. The Project will include the production of biodegradable plastic cutlery products (knives, spoons and forks).

b. "Project Facility" means a 15,000 to 30,000 square foot facility location on the south side of Chicago, Illinois.

c. "Program" means the workforce development program under which BSD will offer manufacturing skills training, apprenticeships, and employment opportunities in a thirteen (13) month vocational education program.

d. "AMBF Partners" shall include, but not be limited to, AMBF, and those existing community organizations and AMBF affiliated entities supporting the Program and Project, such as the Network of Woodlawn (NOW), the Woodlawn Partnership for Economic Development (WPED), as well as certain targeted public sector partners, such as the State of Illinois, Cook County, the City of Chicago, and the City Colleges of Chicago; AMBF Partners shall also include any entities or organizations to be created or engaged to carry out and provide support to the Project or Program, including the anticipated Low Profit Limited Liability Company (L3C) to be formed to conduct the Project and the Program.

e. "AMBF Affiliates" shall include certain entities or organizations with common interest or subject to the common control of AMBF.

f. "BSD Industries L3C" shall means an Illinois low-profit, limited liability company which would serve as the operating entity and business vehicle to create the Project. BSD will also operate the workforce development program and a green products manufacturing business. BSD will also be deemed an "AMBF Affiliate".

g. "Equipment" means all equipment, parts, supplies, related installation and preparation, system integration, program initiation, and related administration costs associated with the robotic processes for the production of plastic flatware and cups.

Section 2: Background

AMBF was created to build on the vision, legacy, and life's work of the late Bishop Arthur M. Brazier, pastor, civic leader, and community activist. AMBF was formed to assist and guide not-for-profit agencies that seek to create a comprehensive and interdependent model for community building. The goal is to improve the quality of life in our African American neighborhoods.

AMBF in conjunction with the Network of Woodlawn (NOW) and its pillar organization, the Woodlawn Partnership for Economic Development (WPED), is creating a social enterprise designed to improve the conditions of the Woodlawn community and surrounding communities through workforce development training and a revenue-generating business model. The social enterprise is modeled in part after Focus: HOPE an education and training program in Michigan focused on underrepresented groups of people

AMBF has created and shared with the CHA its plans as well as other organizational and operational details of the proposed project and its expansion, through various business plans, meetings, and presentations to CHA. AMBF's business plans include the formation of BSD Industries L3C ("BSD"), as AMBF plans to create a training facility where qualified participants enroll in a 50-week training in robotics systems and industrial controls, and thereafter will be placed to serve as apprentices or employees with the BSD plastics manufacturing operation or with other manufacturing firms partnering with or supporting the Program. BSD revenues from product sales in the commercial market will be reinvested in the workforce training program. The training facility, to be known as Industrialize to Empowerment, will provide training for a target of up to an aggregate of four hundred and fifty (450) CHA residents over a 5-year period.

Section 3: Purpose

The purpose of this MOU is to establish a relationship between the parties in support of the AMBF's expanded community workforce development program (the "Program"), and its creation of a social enterprise focused on robotics and industrial controls and providing skills training and capacity-building in robotics manufacturing, each described more specifically herein. The Program builds upon an existing robotics and controls training effort of AMBF and other AMBF Partners, and their intention to expand in capacity, scope, and coordination over time.

A significant goal is to provide CHA residents with Program entry, training and job placement during an initial term of five (5) years. The Program will support up to ninety (90) CHA residents each year of the initial term.

CHA and AMBF (including any of its current and future affiliates and partners in the Program) will cooperate for the purpose of: (1) creating and providing financial assistance and other supportive efforts for the Program; (2) identifying and enrolling CHA residents into the Program; and (3) promoting and ensuring the viability of the Program through sound planning and other efforts between the parties and supporting AMBF Partners throughout the community.

Section 4: **Sources/Uses of Funds – Priorities**

Program and Project activities will be funded by proposed: 1) CHA Project Support (as defined below); and 2) Funding Sources and Partnerships as listed on Exhibit A attached. AMBF Anticipates funding in an aggregate total amount of approximately Five Million Eight Hundred Thousand Dollars ($5,800,000.00)

The primary use of BSD revenues during the first five (5) years shall be to support the long-term viability of the Project and Program through reinvestment of revenues into the Project and the Program, mainly for use as BSD working capital and funding Program activities. A secondary use of revenues shall be for the support of other community initiatives of BSD and AMBF affiliates, particularly AMBF efforts supporting the Woodlawn community in the areas of education, public safety and economic development.

Section 5: **Program Commitments and Leverage**

It is the intent of AMBF and BSD to secure additional funding commitments and leverage for the Program in the aggregate approximate amount of Three Million Eight Hundred Thousand No/100 $3,800,000 over a five-year period). The additional funding may be comprised of financial and/or non-financial components such as BSD profits, capital loans for expansion purposes, matching funds from other grant opportunities, or contributions from partner organizations (such as the City Colleges of Chicago), loans or other forms of debt financing, and donations of funds and other resources (cash, services, property, equipment or in-kind), which shall collectively be referred to as the "Program Commitments". Program Commitments may specifically include, working capital, partner support contributions, and such other support systems as necessary to address the needs of the Program.

Section 6: **CHA Project Support**

The CHA shall provide financial support to the Project ("CHA Project Support") in the form of a restricted grant in the maximum amount of Two Million and 00/100 Dollars ($2,000,000.00) payable as a one-time payment. The CHA Project Support will be utilized by AMBF for the purchase, delivery and installation of the Equipment.

AMBF represents and warrants that the cost of the purchase and installation of the Equipment is not less than the Two Million and 00/100 Dollars ($2,000,000.00). Attached as Exhibit B, is one manufacturer's estimate of the cost of the hardware and estimated dates of production and/or delivery. AMBF will provide final invoices and paid receipts confirming the equipment costs within fifteen (15) days of receipt from the manufacturer.

AMBF further represents and warrants that it will cause a firm order to be placed for the Equipment not later than thirty (30) days after receipt of the CHA Project Support. AMBF will report on the status of the Equipment beginning of the date of placement of the order and continuing every thirty (30) days thereafter, until the Equipment is delivered, installed and in full operation at the Project Facility.

The parties agree that in the event that the final Equipment costs are less than the maximum CHA Project Support amount, the difference will be returned to CHA within thirty (30) days of receipt of the Equipment.

Section 7: No Further Funding

Nothing in this MOU shall require CHA to obligate, transfer, pledge or pay any further funds to AMBF or to any other party. Any agreement that involves payment from one party to the other (or to any third party in furtherance hereof) requires execution of a separate agreement and will be contingent upon formal authorization of such funding or payment(s), specifically including formal approval and resolution by the CHA's Board of Commissioners. Any such activities must be independently and appropriately authorized by the CHA Board of Commissioners and be negotiated, executed, and administered separately and independently of this MOU.

Section 8: Responsibilities of AMBF and AMBF Affiliates

AMBF's and the AMBF Affiliates' responsibilities shall include, but not be limited to, the following:

a. Formation, Governance, and Management of the BSD Industries L3C ("BSD") entity as represented in the business plan, or as the parties may formally agree to in writing;
b. Securing Program Commitments initially through a contribution from the Apostolic Church of God (a 5013c) or other sources (financial and operational);
c. Securing and establishing site control as necessary for the Project and the Project Facility, as well as the operation of the Program;
d. Develop the AMBF training program to meet the agreed parameters, training offerings, placement levels, participant capacity, performance metrics, and other Program requirements; and
e. Work and cooperate jointly with CHA in all matters deemed necessary and appropriate by the parties hereto to bring the proposed Program to completion and fruition, including any form(s) of due diligence, contracting, or other documentation.

See attached as Exhibit C, an illustrative CHA Program Training Schedule.

Section 9: CHA Responsibilities

CHA's responsibilities shall include, but not be limited to, the following:

a. Provide general oversight, coordination, and administrative assistance to the Program, as deemed necessary by CHA;
b. Provide timely referrals of eligible CHA residents for screening and participation in the Program activities or efforts;

c. Provide financial support to the Project, subject to the terms, conditions, and limitations of this MOU and all requirements established for its financial support of the Project, in the CHA's sole discretion; and

d. Provide ongoing coordination and assistance in support of the Program and Project Facility activities.

Section 10: Program Contacts

1. CHICAGO HOUSING AUTHORITY

Mary Howard
Chief Resident Services Officer
mhoward@thecha.org
312.913.7830

Michael Gurgone
Chief Investment Officer/Treasurer
mgurgone@thecha.org
312.786.4096

2. ARTHUR M. BRAZIER FOUNDATION

Nikki Bravo
nikkireneebravo@gmail.com
773-405-8834

Byron T. Brazier
ByronB@acog-chicago.net
773-667-1500

Section 11: Term, Amendment & Termination

a. Term: This MOU shall be in effect from October 1, 2016 through September 30, 2021.

b. Amendment, Revision, or Supplement: This MOU focuses on the general coordination efforts related to the Program, the Project, and the Project Facility, and it may be amended, modified or supplemented through the agreement of both parties as these needs and requirements of the Program and Project are further defined. It may be amended at any time by agreement between the parties. The MOU may be amended to incorporate changes required by ordinance, resolution of the CHA, legislation, regulation, and/or policy. This MOU is also subject to the parties' entry into a Program Model and Agreement, which shall set forth the material terms and conditions of the parties' participation, duties, and coordination among other responsibilities. The essential terms of the Program Model and Agreement and AMBF's associated workforce development commitments are substantially set forth in AMBF's business plan, curriculum and related documentation presented to the CHA Board of Commissioners, which are attached and incorporated herein by reference.

c. Termination: The CHA may withdraw from the MOU for any reason by presenting the AMBF with written notice delivered to the other party at least thirty (30) days in advance of the effective date of withdrawal; AMBF shall have no right to terminate the Program prior to the expiration of the initial Program term.

d. The Parties to this MOU may mutually agree to expand the Program for an additional 5-year term.

Section 12: Program and Project Commitments

Per the BSD business plan, the Project and Program Commitments will include AMBF's successful provision and performance of:

a. Project Funding (Capital, Matching, Leverage);
b. BSD Organization and Governance;
c. Site Control for the Project;
d. Procurement of all necessary certifications and licenses necessary for the Program; and
e. Formal establishment of the Program, including Program parameters, assumptions, and terms.

Section 13: Guaranty of Performance

AMBF seeks the creation and implementation of the Project and the Program. AMBF acknowledges that CHA's primary purpose of participation is the Program's benefit to CHA residents. AMBF guarantees it will uphold its responsibilities as outlined under this MOU, including specifically through BSD, the training. Further, AMBF acknowledges its obligations to make reasonable good faith efforts towards placement of CHA residents as agreed to in this MOU. AMBF and CHA agree that AMBF's failure to perform under this MOU may constitute a default.

Section 14: Organizational Requirements for CHA Support

At all times, BSD must be a duly-organized and lawfully operating Illinois L3C company in good standing. During the respective terms of the Project and the Program, BSD shall likewise operate as, and shall actively maintain its status and compliance as, a duly-registered and lawfully-operating entity in compliance with applicable laws and regulations. BSD's uses of the Project grant shall be in association with the Program. Notwithstanding, the intended status of BSD as a community-based L3C social enterprise affiliated with certain not-for-profit, tax-exempt, charitable or community organizations, BSD shall not be operated during the terms of the Project and the Program in such a manner that may result in personal inurnment to any individual in their personal capacity.

Section 15: Reporting

AMBF agrees to report significant status updates to CHA beginning thirty (30) after execution of this MOU and each thirty (30) days thereafter, until September 30, 2017. Thereafter AMBF will report significant status updates quarterly, for the Term of this MOU. Status reports will include, at minimum, an update on all information provided in the Exhibits attached to this MOU, including in particular Exhibit D - AMBF Project & Project Timeline

Section 16: Default and Remedies

Each of the following shall constitute an event of default under this MOU:

a. Any material misrepresentation, whether negligent or willful, and whether in the inducement or in the performance of this MOU and its related activities, made by AMBF to the CHA;

b. AMBF's failure to perform any material obligation under this MOU; and

c. AMBF's default under any other agreement it may presently have or may enter into with the CHA during the Term of this MOU. AMBF acknowledges and agrees that in the event of a default under this AMBF, the CHA may also declare a default under any such other agreements.

The occurrence of any event of default which AMBF fails to cure within thirty (30) business days after receipt of written notice given in accordance with the terms of this MOU and specifying the event of default or, if such event of default cannot be reasonably cured within thirty (30) business days after notice, or if AMBF has failed to commence and continue diligent efforts to cure such default within (30) business days, the CHA may, at its sole option, declare ABMF in default. Written notification of the default, and any intention of the CHA to terminate the MOU, shall be provided to ABMF within ten (10) business days and such decision may be final and effective upon the CHA's delivery of such notice pursuant to the terms of this MOU. The CHA shall extend the cure period for an additional thirty (30) business day period if BSD is demonstrating reasonable efforts to cure the event of default and may continue to extend the cure period pending compliance. Upon the giving final notice after any cure period or extended cure period, the CHA may invoke any or all of the following remedies:

a. The right to terminate this MOU as to any or all of the services or obligations yet to be performed effective at a time specified by the CHA.

b. The right to pursue any and all remedies, legal and/or equitable, available to the CHA.

c. The right to withhold all or any part of funds contemplated herein with respect to any services or other obligations and duties of ABMF under this MOU.

d. The return of any proportional share of grant funds provided under this MOU.

The parties acknowledge that this provision is solely for the benefit of the CHA and that if the CHA permits ABMF to continue to provide or fulfill the services or other contractual obligations of this MOU despite one or more events of default, ABMF shall in no way be relieved of any of its responsibilities, duties, or obligations under this MOU, nor shall the CHA waive or relinquish any of its rights.

The remedies under the terms of this MOU are not intended to be exclusive of any other remedies, but each and every such remedy shall be cumulative and shall be in addition to any other remedies, existing now or hereafter, at law, in equity or by statute. No delay or failure to exercise any right or power accruing upon any event of default shall be construed as a waiver or acquiescence by CHA and every such right and power may be exercised from time to time and as often as may be deemed expedient.

Section 17: Governing Law and Jurisdictions

This MOU shall be governed as to performance and interpretation in accordance with the laws of the State of Illinois. AMBF agrees that service of process on AMBF may be made, at the option of the CHA, either be registered or certified mail addressed to the applicable office as provided for in this MOU and to the office actually maintained by AMBF, or by personal delivery on any registered agent of AMBF or BSD.

IN WITNESS WHEREOF, the Parties hereto have executed this MOU the day and year written above.

CHICAGO HOUSING AUTHORITY

BY: _____
Eugene E. Jones, Jr.
Chief Executive Officer

ARTHUR M. BRAZIER FOUNDATION

BY: _____
Dr. Byron T. Brazier
Chairman and Chief Executive Officer

The remedies under the terms of this MOU are not intended to be exclusive of any other remedies, but each and every such remedy shall be cumulative and shall be in addition to any other remedies, existing now or hereafter, at law, in equity or by statute. No delay or failure to exercise any right or power accruing upon any event of default shall be construed as a waiver or acquiescence by CHA and every such right and power may be exercised from time to time and as often as may be deemed expedient.

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Eugene E. Jones, Jr.
Chief Executive Officer

ARTHUR M. BRAZIER FOUNDATION

BY: _____
Dr. Byron T. Brazier
Chairman and Chief Executive Officer

EXHIBIT A

Apostolic Church of God	Funding current training program
City of Chicago – TIF Works	Application Submitted
State of Illinois – DCEO Innovation Grant	Application Submitted
Chase Bank	Grant Received
City Colleges of Chicago	Collaboration Discussions Underway
University of Chicago Polsky Exchange	Internship Provider
University of Chicago	Primary Vendor Relationship
Hyatt Hotels	Primary Vendor Relationship

EXHIBIT B

MOTION CONTROLS ROBOTICS

03680-ER-Woodlawn Workforce Development – Chicago, IL

Quotation #: 03680-ER
Quotation Date: 3/1/2016
Revision Date: 5/5/2016
Valid Unit: 4/30/2016

(SEE ATTACHED)

03680-ER - Woodlawn Workforce Development - Chicago, IL

Quotation #: 03680-ER
Quotation Date: 3/1/2016
Revision Date: 5/5/2016
Valid Until: 4/30/2016

As a Certified Servicing Integrator for FANUC Robotics we are pleased to provide the following quote.

Prepared for:

Tristin Bonds

Chicago, IL

By:

Earl Raynal Jr.
Sales Manager
Motion Controls Robotics, Inc.
(419) 334 5886
1500 Walter Ave
Fremont, Ohio 43420
earl.raynal@mcri-us.com

Keeping manufacturers competitive with quality robotic solutions

MOTION CONTROLS ROBOTICS

1500 Walter Ave.
Fremont, Ohio 43420
Phone:419.334.8555
Fax: 419.334.8530
www.motioncontrolsrobotics.com

05/05/16 03680-ER - Woodlawn Workforce Development - Chicago, IL

Trista,

Attached is an updated proposal for the Woodlawn Workforce Development project that includes the Milacron press and mold per your recent request.

I placed a call to Mike Green at Milacron to review his proposal and scope and find out if Milacron would pass along a discount on their equipment to us as an integrator, but haven't heard back from him yet. I included 20% markup on the press and 15% on the mold. Our customers typically purchase the presses that we interface with, directly from the press suppplior. We will purchase and provide the press and mold including all coordination and integration but we will need to markup that equipment if we do.

Still need product packaging information to firm up handling concepts and validate our proposal.

Best regards,

Earl.
231.622.8600

Qty	Description	Total Cost
	Robot	
	Robot Model: M-710iC/50 - Mechanical Unit: 6 axis - Robot Controller: R-30iB Remote A size cabinet controller - Payload: 50 kg (includes End-of-Arm Tooling) - Reach: 2.05 M - Mounting: Floor/Fiber - Safety: RIA compliant E-stop controller - Operator Control: RIA compliant operator panel and pendant w/10M cable - Documentation: CD including R-30iB HandlingTool software, mechanical unit documentation and R-30iB controller documentation - Power Requirements: 440 - 575 VAC, 12KVA power drop 2.5KW average power consumption For additional specification and performance details on this robot model see the FANUC product sheet http://mot-us.com/downloads/techdocs/M710_R30iA.pdf	
	Robot Subtotal	$169,499.00
	Robot Required Options Advanced EIP (EtherNet/IP) Package RTL-R660	
	HandlingTool Advanced DCS Package RTL-R659 DCS Safe I/O Cable A-Cab 1M CBLE00000004520 Motion Package RTL-R609 - ADV-CP Path Control RTL-R606 - ADV-CP Speed Control RTL-R605 - Constant Path RTL-R683 - Collision Guard Pack RTL-J684 - Motion Interface RTL-R563 - Singularity Avoidance RTL-R792 - Basic Interference Check RTL-R761 KAREL RTL-R632 Math Function RTL-J693 Password Protection RTL-J541 No-charge Options (No PAC code required) No Charge Option	

- KAREL Diagnostic RTL-R566
- MROT Instruction RTL-R640

KAREL is used for serial communication, advanced logic and other advanced robot functions

Coordinated Motion Software
- Allows multiple motion groups to coordinate motion for maintaining the taught path profile.
- Allows multiple robots work as slave to another motion group such as tilt and or turn table.
- Used to create 4D graphics layout of the work cell on the iPendant
- Allows you to create related graphics display of the process

Robot Required Options Subtotal **$35,008.00**

Robot Base

Fabricated robot base
- Fabricated steel robot base painted black
- This is a fixed base that will be anchored to the floor and will not be movable.
- Base is designed for a 6-axis robot (no leveling screws required)
- This will locate the robot at the correct position and height

Robot Base Subtotal **$21,314.00**

End Of Arm Tooling (EOAT)

Press unload end of arm tool

Carton Packing EOAT
- Lightweight, sturdy aluminum construction
- Handles multiple products at a time
- Vacuum Cups with vacuum generators
- Dropped product detection
- Search sensor

6 Product Handling/Carton Filling Fingers

Case Packing EOAT
- Lightweight, sturdy aluminum construction
- Handles multiple products at a time
- Vacuum Cups with vacuum generators
- Dropped product detection
- Search sensor

Note: Shuttle to remove parts from inside press mold cavity to be supplied by press manufacturer - MCRI to interface with this unit
- EOAT Design/Detail
- EOAT Machining
- EOAT Fabrication
- EOAT Assembly
- EOAT Electrical Build

End Of Arm Tooling (EOAT) Subtotal **$109,430.00**

Vision

Vision Subtotal **$0.00**

Milacron Press

Milacron NTm550 Powerpak All-Electric Press

Mold

MCRI Markup for Handling/Ordering/Integration Coordination
- Process cooling equipment not included
- Travel expenses for Milicron site support not included
- Freight not included

Milacron Press Subtotal **$1,161,764.0(**

Controls

Main electrical enclosure
- Single door free standing type 12 enclosure
- 60amp external disconnect with stand

Qty	Description	Total Cost
	- 24vdc power supply (10amp)	
	- 1kva transformer for control voltage	
	- Green part external programming and power outlet	
	- Stack Light (2 color) mounted on top of enclosure	
	- Required fuse blocks, fuses, terminals, wire duct & filtered ventilation	
	- Nameplate with required UL data	
	- Panel is UL listed (robot panels are not UL listed)	
	-AB Logix Processor	
	-Premium Ethernet IP Communication Module	
	-2 Remote I/O Racks	
	-128 Inputs/128 Outputs	
	- ControlLogix Ethernet/IP scanner	
1	-Ethernet IP Remote I/O Rack	
	-64 Inputs/64 Outputs	
1	- Panelview Plus 1250 (12.5") touch screen, Ethernet/IP communications	
	Interconnection cabling within system	
	- Multiconductor cable	
	- Distribution blocks	
	- 4" x 4" wire trough (enclosed type 1 style with cover) elevated on 1 3/4" Unistrut	
	- System Ethernet/IP network, with a managed switch and shielded ethernet cables.	
2	- Estop station	
	- AB Illuminated E-stop twist push button	
	- 1 hole push button box	
	- Cable and wiring	
	- Rigid stand	
6	- 18mm inductive prox switche(s) with quick disconnect and mount	
6	- Reflective photo eyes with quick disconnect and mount	
6	- Diffused photo eyes with quick disconnect and mount	
6	- Cylinder switches, quick disconnect and mount	
	System pneumatics	
	- System air inlet 1-1/2"	
	- Coalescing filter (0.7 micron)	
	- Manual lockout	
	- Regulator with gauge	
	- Air pressure switch	
	- Solenoid dump	
2	- Adder for control reliable dump valve 3/4"	
	- System air distribution	
	- Elevated off floor on 1 3/4" Unistrut	
5	Conveyor Zone Control(s) each including	
	- (1) PowerFlex 525 1hp drive no communication and fuses	
	- (1) Reflective photo eyes with quick disconnect and mount	
3	Conveyor Transfer Zone Control(s) each including	
	- (1) PowerFlex 525 1hp drive no communication and fuses	
	- (2) Reflective photo eyes with quick disconnect and mount	
	- (2) 18mm inductive prox switches with quick disconnect and mount	
	- (1) Station Valve Bank	
	- (1) Point I/O module	
	- SPI interface cable	
	- Cables	
	- Connectors	
	Controls Subtotal	**$68,903.00**

MOTION CONTROLS ROBOTICS
1500 Walter Ave
Fremont, Ohio 4343
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www.motioncontrolsrobotics.com

05/05/16 03660-ER - Woodlawn Workforce Development - Chicago, IL

Qty	Description	Total Cost
	Safety and Guarding	
	Risk assessment for equipment supplied by MCRI - Risk assessment will be included in manual	
2	- Door(s) electronically locked - Door interlock(s) to meet or exceed current ANSI/RIA 15.06-2012 standards. - Request to enter PB station	
	Smart Guard 600 programmable safety controller - 16 safety inputs - 8 safety outputs - Ethernet/IP communications	
	- Safety I/O Module 8in/8out with Ethernet/IP communication	
2	Cable Estop Pull Switch - 30' of red pull cable, tensioner and mounts	
1	440L-P4K0660YD Light Curtain with cables & mounts for mold machine and EOAT protection	
	Safety and Guarding Subtotal	**$13,947.0**
	Conveyor and Turntable	
2	Case Conveyor - 5' long - 15" between frames - 1.9 x 16 ga. galvanized rollers - Rollers set high on 3" centers	
4	Case Conveyor - 10' long - 30" between frames - 1.9 x 16 ga. galvanized rollers - Rollers set high on 3" centers	
3	Pop up transfer for 90 degree transfer	
1	Turntable	
12	Turntable fixturing (one set each for forks, knives, spoons)	
	Conveyor and Turntable Subtotal	**$198,170.0**
	Carton and Case Handling	
	Case Erector (Plug)	
	Carton Erector (Plug)	
1	Carton Closer (Plug)	
1	Case Sealer (Plug)	
	Carton and Case Handling Subtotal	**$277,857.0**
	Registration	
	Case Registration for robot loading - Controls, valves and cylinders - 4 port Lumberg style EE distribution block	
	Carton Registration for robot loading - Controls, valves and cylinders - 4 port Lumberg style EE distribution block	
	Registration Subtotal	**$26,579.0**
	Mechanical Engineering	

Qty	Description	Total Cost
	Layout of cell system which may include - Plan view layout - Elevation view layout - Robot envelope reach study Mechanical Engineering which may include - Mechanical engineering design, detailing and layout drawings - EOAT Inertia calculations - Cycle time and rate calculations - Mechanical bill of materials Trip to customer site for field measurement, travel expenses will be billed at cost. Mechanical Engineering Subtotal	$23,558.00
	Electrical Engineering Electrical Layout - Main power drop location and sizing - Main panel and JBox locations - Sensor layout - Wireway layout and cable routing Electrical Design - Design and detail of electrical schematics - Electrical BOM - Cable length requirements - Adherence to NFPA 79 requirements including cell labeling Electrical Engineering Subtotal	$54,892.00
	Programming Robot Programming which may include - I/O documentation - Register documentation - EOAT Payload setup - Collision Guard setup - System programming - Error recovery - Homing PLC/PMC Programming - I/O Documentation - Ladder programming and documentation HMI Programming that may include - Graphical display of system - Graphical error reporting and recovery - Graphical I/O display - Error logging Vision Programming which may include - Ambient lighting evaluation - Supplemental lighting selection - Camera lens selection - Camera positioning - Vision calibration - Vision training for (x) parts	
30	Startup hours	
20	Runoff hours	
	Programming Subtotal	$71,068.00

1600 Walter Av
Fremont, Ohio 434
Phone:419.334.58
Fax: 419.334.58
www.motioncontrolsrobotics.co

Qty	Description	Total Cost
	Manufacture, Setup & Runoff	
	Panel Build	
	- Backpanel and Jbox layout and wiring	
	- Assemble wire tray	
	- Cabling and connections	
	- All wiring to remote locations from the main electrical enclosure	
	- May be completed using quick disconnect plugs and cable	
	- This will allow a quick installation	
	- Hot check	
	Setup / Runoff which may include	
	- Fabrication, machining, paint, and assembly of all system components	
	- Assembly of system independently includes	
	- Set-up	
	- Start-up	
	- Testing	
	- Demonstration	
	- At our facility in Fremont, Ohio	
	- Complete testing and debug of EOAT	
	- Teardown and preparation for shipping	
	Manufacture, Setup & Runoff Subtotal	$44,810.00
	Onsite Training & Support	
50	Hours training at customer facility	
50	Hours commissioning support	
	- Travel expenses will be billed at cost	
	Onsite Training & Support Subtotal	$9,143.00
	Project Management	
	Project Management / Documentation	
	- Project scheduling using Microsoft Project	
	- Project management and administration	
	- Material procurement	
	Documentation	
	- Pricing includes one (1) CDROM manual, hardcopy manuals available at $450 per copy.	
	- Robot manuals are available in CDROM format only, one (1) CDROM per robot	
	Project Management Subtotal	$44,072.00
	Standards and Certifications	
	ANSI/RIA 15.06-2012 Industrial Robot Systems Safety Requirements	
	OSHA	
	Standards and Certifications Subtotal	$0.00
	Installation	
	Electrical Installation	
	- Installation of wireway	
	- Installation of cable and connections	
	- Hot check	
	Mechanical Installation	
	- Layout of system	
	- Placement of system components	
	- Leveling and lagging of system components	
	- No demolition is included	

MOTION CONTROLS ROBOTICS
1500 Waller Ave.
Fremont, Ohio 43420
Phone:419.334.8383
Fax: 419.334.8339

05/06/16 03680-ER - Woodlawn Workforce Development - Chicago, IL

Qty	Description	Total Cost
	- Utilities required to be run by customer to designated locations on our layout drawings	
	Installation (Option)	
	- Included in installation option:	
	- Chemical anchoring of robot	
	- Lagging and leveling of equipment provided by MCRI	
	Installation Subtotal	$48,631.00
	System Investment Total	$2,372,852.00
	Estimated Travel Expenses (actual travel expenses will be billed at cost)	
120	- Travel time	
5,280	- Mileage	
105	- Meal(s)	
105	- Hotel(s)	
	Estimated Travel Expenses Subtotal	$31,543.00
	Estimated Rental Expenses (actual rental expenses will be billed at cost)	
2	- Week(s) fork truck rental	
	- 8000lb minimum	
	- 31" minimum between forks	
	- Forks to fit 3.5" x 7.5" cavity	
	- Tank(s) propane	
	Estimated Rental Expenses Subtotal	$2,130.00
	Estimated Freight Expenses (actual freight expenses will be billed at cost plus 15% processing fee)	
	Estimated Freight Expenses Subtotal	$3,999.00

* Note: For prompt and timely response by Motion Controls Robotics please:

- Include our Quotation # and Revision Date from this proposal's cover page in your purchase order
- Include a confirmation of MCRI payment terms in your purchase order
- Address the purchase order to your MCRI sales contact

Delivery

Estimated delivery at customer site: 38 weeks after design approval, 42 weeks after receipt of PO. Estimated delivery is based upon current material availability and workload and will be confirmed with a schedule at the time the Purchase Order is placed.

Customer agrees to furnish all necessary information, documents and test product by agreed-upon dates, or incur potential project delays.

Payment Terms

30% Due upon receipt of purchase order due net.

30% Due upon receipt of major equipment at MCRI due net. This payment is a percentage of the total purchase order and is due in full on the date the robot(s) or major equipment items are received at MCRI. Shipping documentation is available upon request.

Qty	Description	Total Cost

35% Due upon successful acceptance/runoff at MCRI due net - This payment is a percentage of the total purchase order. This payment is due in full upon factory acceptance by the customer at Motion Controls Robotics acknowledging successful completion of the system runoff or agreement to ship.

Balance due upon completion of project at customer site due net 30. Should receipt or acceptance of the equipment at customer facility be delayed for any reason beyond Motion Controls Robotics' responsibility, this payment is due no more than 60 days from receipt of equipment

To Be Provided By Customer

- Site preparation (preferable 6" concrete under robot base)
- Electrical supply to the main control cabinet
- Pneumatic supply to our robot cell FLR
- Shipping will be billed at cost (see terms attached)
- Installation travel time, travel expenses, living expenses to be billed at cost (see rates below)
- Programming software & cables not provided unless stated above
- Items not specified as part of this quote.
- Rental of rigging equipment will be billed at cost

EXHIBIT C

CHA PROGRAM TRAINING SCHEDULE

(SEE ATTACHED)

CHA TRAINING PROGRAM SCHEDULE

AMBF Robotics Technician Training Program

	Module Name	No. of Hours	Target No. of Trainees
1	Boost Camp	40	90
2	Level I - AutoCAD	40	90
3	Level II - Industrial Electronics	40	90
4	Level III - Industrial Controls Systems Programming	40	90
5	Level IV - Robotics Programming	40	90
		Total CHA Training Capacity	450

Three Training Lab Capacity

Training Year	Training Session	Training Lab 1	Training Lab 2	Training
		Boost Camp	Level I & II	Level III & Level
Year 1	Session 1	45	0	0
	Session 2	0	45	0
	Session 3	45		0
	Session 4	0	45	45
Year 1 Totals		90	90	45
Year 2	Session 5	45	45	45
	Session 6	0	45	45
	Session 7	45		
	Session 8	0	45	45
Year 2 Totals		90	135	135
Year 3	Session 9	45	45	45
	Session 10	0	45	45
	Session 11	45		
	Session 12	0	45	45
Year 3 Totals		90	135	135
Year 4	Session 13	45	45	45
	Session 14	0	45	45
	Session 15	45		
	Session 16	0	45	45
Year 4 Totals		90	135	135
Year 5	Session 17	45	45	45
	Session 18	0	45	45
	Session 19	45		
	Session 20	0	45	45
Year 5 Totals		90	135	135

EXHIBIT D

AMBF Project and Project Timeline

(SEE ATTACHED)

AMBF Project & Project Timeline