

HANDBOOK FIRST ROBOTICS





ARIA STEAMEX FRC

WHAT DO WE DO?

AT ARIA 11040 WE DESIGN, BUILD AND REFINE A HIGH-PERFORMANCE COMPETITION ROBOT FOR THE ANNUAL FIRST ROBOTICS COMPETITION CHALLENGE, WHERE IT FACES MACHINES BUILT BY TEAMS FROM AROUND THE WORLD. OUR WORK GOES BEYOND ENGINEERING: WE RUN AS A COMPLETE ORGANIZATION, STRUCTURED WITH DISCIPLINE AND PURPOSE, MUCH LIKE A PROFESSIONAL INSTITUTION.

OUR TEAM IS MADE UP OF STRATEGIC AREAS:

- ENGINEERING
- MECHANICAL
- ELECTRICAL
- PROGRAMMING
- MARKETING
- FINANCE
- MANAGEMENT

THAT WORK TOGETHER WITH PRECISION AND COORDINATION. INSPIRED BY THE GREATNESS OF THE ROMAN EMPIRE, EVERY MEMBER BRINGS HER TALENT AS PART OF ONE UNITED LEGION. NO PRIOR EXPERIENCE IS REQUIRED: WE VALUE THE WILLINGNESS TO LEARN, GROW AND CONTRIBUTE. HERE, EVERY MEMBER FINDS HER PLACE AND RECEIVES THE TRAINING SHE NEEDS TO DEVELOP.

WHY DO WE DO IT?

BECAUSE WE BELIEVE IN THE POWER OF KNOWLEDGE APPLIED WITH PASSION. FIRST PROMOTES LEARNING THROUGH EXPERIENCE, AND AT ARIA WE CARRY THAT WITH PRIDE AND DETERMINATION. ALONG THE WAY, OUR MEMBERS GAIN TECHNICAL SKILLS IN MECHANICS, ELECTRONICS AND PROGRAMMING WHILE STRENGTHENING CORE VALUES: TEAMWORK, LEADERSHIP, DISCIPLINE, RESPECT AND INTEGRITY. MORE THAN A TEAM, WE ARE A SISTERHOOD THAT FORMS STRONG, CAPABLE WOMEN READY TO LEAD IN ANY FIELD.

TEAM FUNDAMENTALS

ARIA 11040 IS A NATIONAL-LEVEL TEAM MADE UP EXCLUSIVELY OF WOMEN FROM DIFFERENT STATES OF MEXICO, WHICH ENRICHES OUR DIVERSITY, PERSPECTIVE AND REACH. WE WORK HAND IN HAND WITH MENTORS WHO SPECIALIZE IN ENGINEERING, BUSINESS AND PROFESSIONAL DEVELOPMENT AND GUIDE OUR TECHNICAL AND PERSONAL GROWTH. DURING THE FALL, EVERY AREA TRAINS INTENSIVELY IN THE SKILLS NEEDED FOR THE SEASON.

WHAT DO TEAM MEMBERS DO?

THEY TAKE AN ACTIVE PART IN THE GROWTH AND OPERATION OF THE TEAM. EACH MEMBER'S LEVEL OF COMMITMENT SHAPES HER PARTICIPATION IN EVENTS AND COMPETITIONS, ESPECIALLY TRAVEL, WHERE THE MOST MEANINGFUL EXPERIENCES HAPPEN.

WE UNDERSTAND THAT EVERY MEMBER HAS DIFFERENT AVAILABILITY, SO WE OFFER FLEXIBILITY IN PARTICIPATION. MEMBERS WHO WISH TO ATTEND COMPETITIONS MAY BE ASKED TO CONTRIBUTE PART OF THE RELATED COSTS. WE ALSO EXPECT SOLID ACADEMIC PERFORMANCE AND EXEMPLARY CONDUCT, IN LINE WITH THE VALUES WE REPRESENT.





WHEN DO WE MEET?

OUR SESSIONS TAKE PLACE REGULARLY AT THE DESIGNATED WORKSHOP FOR MOST OF THE YEAR, DEPENDING ON AVAILABILITY.

THESE SESSIONS ARE OPEN TO INTERESTED STUDENTS, AS WELL AS PARENTS AND PARTNERS WHO WANT TO LEARN MORE ABOUT THE TEAM.

WHAT DO YOU GAIN BY JOINING ARIA 11040?

BEYOND THE EXPERIENCE OF BUILDING A COMPETITIVE ROBOT, MEMBERS GET HANDS-ON LEARNING GUIDED BY PROFESSIONALS, DEVELOP HIGH-VALUE SKILLS AND LIVE ENRICHING EXPERIENCES INSIDE A COMMITTED AND PASSIONATE TEAM.

FIRST PARTICIPATION ALSO OPENS DOORS TO SIGNIFICANT ACADEMIC OPPORTUNITIES, INCLUDING ACCESS TO UNIVERSITY SCHOLARSHIPS, A STRONGER ACADEMIC AND PROFESSIONAL PROFILE, AND RECOMMENDATION LETTERS FROM MENTORS.

JOINING ARIA IS MORE THAN BELONGING TO A TEAM: IT MEANS JOINING A COMMUNITY THAT DRIVES GROWTH, EXCELLENCE AND WOMEN'S LEADERSHIP.

HOW THE TEAM IS ORGANIZED

ARIA 11040 IS A NATIONAL FIRST ROBOTICS COMPETITION TEAM MADE UP EXCLUSIVELY OF WOMEN FROM SEVERAL STATES OF MEXICO. THIS GEOGRAPHIC DIVERSITY STRENGTHENS OUR VISION, BRINGS IN DIFFERENT PERSPECTIVES AND ENRICHES BOTH OUR TECHNICAL AND PERSONAL PERFORMANCE.

WE STAND OUT FOR A SOLID, STRATEGIC ORGANIZATIONAL STRUCTURE INSPIRED BY THE DISCIPLINE, ORDER AND GREATNESS OF ANCIENT ROME.

EACH MEMBER IS PART OF A MODERN "LEGION" WHERE COMMITMENT, PREPARATION AND COLLABORATION ARE THE PILLARS OF EXCELLENCE.

THE TEAM IS ORGANIZED INTO SPECIALIZED AREAS COVERING ENGINEERING (MECHANICAL, ELECTRICAL AND PROGRAMMING) AS WELL AS ADMINISTRATION AND OUTREACH (MARKETING, FINANCE, SOCIAL IMPACT AND MANAGEMENT).

THESE DIVISIONS WORK IN COORDINATION, ALLOWING THE ROBOT AND THE TEAM TO DEVELOP AS A WHOLE.

WE ARE ALSO SUPPORTED BY EXPERT MENTORS FROM DIFFERENT DISCIPLINES WHO GUIDE THE LEARNING PROCESS AND ENCOURAGE EACH MEMBER'S PROFESSIONAL GROWTH.





MEMBER PARTICIPATION

BEING PART OF ARIA 11040 MEANS TAKING AN ACTIVE ROLE IN THE TEAM AND HELPING REACH SHARED GOALS THROUGH CONSISTENT, RESPONSIBLE AND COMMITTED PARTICIPATION.

EACH MEMBER CAN JOIN THE AREA THAT BEST FITS HER INTERESTS AND ABILITIES, BUILDING BOTH TECHNICAL AND INTERPERSONAL SKILLS.

PARTICIPATION CAN INCLUDE ACTIVITIES SUCH AS:

- DESIGNING, BUILDING AND IMPROVING THE ROBOT.
- DEVELOPING PROGRAMMING AND ELECTRONIC SYSTEMS.
- STRATEGIC PLANNING AND RESOURCE MANAGEMENT.
- CREATING CONTENT, OUTREACH AND TEAM POSITIONING.
- ORGANIZING EVENTS AND SOCIAL IMPACT ACTIVITIES.

THE LEVEL OF INVOLVEMENT CAN ADJUST TO EACH MEMBER'S AVAILABILITY; HOWEVER, WE ENCOURAGE CONSISTENCY AND COMMITMENT AS KEY ELEMENTS OF INDIVIDUAL AND COLLECTIVE GROWTH.

WHAT MEMBERS CONTRIBUTE AND GAIN

BEING PART OF ARIA 11040 IS A COMPLETE FORMATIVE EXPERIENCE THAT GOES BEYOND THE CLASSROOM. MEMBERS GAIN PRACTICAL KNOWLEDGE APPLIED IN REAL CONTEXTS, GUIDED BY PROFESSIONALS IN A HIGH-LEVEL COLLABORATIVE ENVIRONMENT.

KEY BENEFITS INCLUDE:

- TECHNICAL SKILLS IN ENGINEERING AND TECHNOLOGY.
- SOFT SKILLS SUCH AS LEADERSHIP, COMMUNICATION, TEAMWORK AND PROBLEM SOLVING.
- ACCESS TO ACADEMIC OPPORTUNITIES, INCLUDING FIRST-LINKED UNIVERSITY SCHOLARSHIPS.
- REAL PROJECT EXPERIENCE THAT STRENGTHENS ACADEMIC AND PROFESSIONAL PROFILES.
- A NETWORK OF PROFESSIONALS, MENTORS AND OTHER TEAMS IN MEXICO AND ABROAD.

PARTICIPATION ALSO BUILDS CONFIDENCE, INDEPENDENCE AND LEADERSHIP IN YOUNG WOMEN, PREPARING THEM TO FACE FUTURE CHALLENGES WITH DETERMINATION AND EXCELLENCE.

MISSION

TO BUILD A GENERATION OF WOMEN ABLE TO LEAD, INNOVATE AND SOLVE COMPLEX PROBLEMS THROUGH ENGINEERING, LEAVING AN IMPACT THAT REACHES BEYOND COMPETITION.

VISION

TO BUILD A LEGACY THAT INSPIRES GENERATIONS OF WOMEN TO LEAD IN SCIENCE, TECHNOLOGY AND ENGINEERING, MAKING ARIA A SYMBOL OF EXCELLENCE, PERSEVERANCE AND INNOVATION.





VALUES

INSPIRED BY THE PRINCIPLES OF HONOR AND DISCIPLINE OF ANCIENT ROME, ARIA 11040 IS GUIDED BY THESE CORE VALUES:

- DISCIPLINE: ACT WITH CONSISTENCY, ORDER AND COMMITMENT IN EVERY ACTIVITY.
- EXCELLENCE: ALWAYS PURSUE CONTINUOUS IMPROVEMENT IN EVERY PART OF THE TEAM.
- TEAMWORK: COLLABORATE RESPECTFULLY AND EFFICIENTLY TO REACH COMMON GOALS.
- INTEGRITY: ACT WITH HONESTY, RESPONSIBILITY AND ETHICS AT ALL TIMES.
- RESPECT: VALUE THE IDEAS, EFFORT AND DIVERSITY OF EVERY MEMBER.
- LEADERSHIP: ENCOURAGE INITIATIVE AND THE ABILITY TO POSITIVELY INFLUENCE OTHERS.
- SISTERHOOD: SUPPORT ONE ANOTHER AS WOMEN, BUILDING A SAFE, INCLUSIVE SPACE WHERE WE GROW TOGETHER.

EXPECTATIONS FOR MEMBERS

BEING PART OF ARIA 11040 MEANS MAKING AN ACTIVE, RESPONSIBLE AND CONSISTENT COMMITMENT TO THE TEAM'S GOALS. EVERY MEMBER IS A KEY PIECE OF THIS "LEGION," SO WE EXPECT DISCIPLINED, COLLABORATIVE PARTICIPATION ALIGNED WITH THE VALUES WE REPRESENT.

STUDENTS SHOULD SHOW A WILLINGNESS TO LEARN, WORK AS A TEAM AND CONTRIBUTE TO BOTH TECHNICAL AND ORGANIZATIONAL ACTIVITIES. WE ALSO EXPECT PUNCTUALITY, RESPECT, ACADEMIC RESPONSIBILITY AND A PROACTIVE ATTITUDE TOWARD EVERY CHALLENGE.

INDIVIDUAL COMMITMENT STRENGTHENS COLLECTIVE PERFORMANCE; EVERY ACTION, HOWEVER SMALL, HAS A DIRECT IMPACT ON THE TEAM'S GROWTH AND SUCCESS.

PRESEASON: RESOURCES AND REGISTRATION

DURING PRESEASON, THE TEAM FOCUSES ON RAISING THE RESOURCES NEEDED TO COVER FIRST ROBOTICS COMPETITION REGISTRATION AND OTHER INITIAL COSTS.

IN THIS PERIOD, ACTIVE PARTICIPATION FROM EVERY MEMBER IS ESSENTIAL. STUDENTS COLLABORATE IN ACTIVITIES SUCH AS:

- FUNDRAISING STRATEGIES.
- FINDING AND MANAGING SPONSORSHIPS.
- ORGANIZING EVENTS AND CAMPAIGNS.
- PROMOTING THE TEAM AND ITS IMPACT.

COMMITMENT IN THIS PHASE REFLECTS EACH MEMBER'S RESPONSIBILITY AND DETERMINATION, SINCE REACHING THIS GOAL IS WHAT ALLOWS THE TEAM TO COMPETE OFFICIALLY IN THE SEASON.

AT ARIA 11040, WE SEE THIS STAGE AS THE FOUNDATION FOR ALL THE WORK THAT FOLLOWS.





SEASON: BUDGET AND PRIORITIES

DURING THE OFFICIAL SEASON, ALL FUNDS RAISED ARE MANAGED STRATEGICALLY AND TRANSPARENTLY, PRIORITIZING THE TEAM'S CORE NEEDS.

INCOME IS MAINLY ALLOCATED TO:

- MATERIALS AND COMPONENTS TO DESIGN AND BUILD THE ROBOT.
- TOOLS AND TECHNICAL EQUIPMENT.
- COMPETITION LOGISTICS (REGISTRATION, TRANSPORTATION, LODGING AND MORE).
- DEVELOPING AND STRENGTHENING THE TEAM'S AREAS.

RESOURCES ARE ALLOCATED BY PRIORITY, EFFICIENCY AND COLLECTIVE BENEFIT, SO EVERY DECISION SUPPORTS THE ESTABLISHED GOALS.

THIS PROCESS GIVES MEMBERS A REALISTIC VIEW OF PROJECT MANAGEMENT AND RESPONSIBLE USE OF RESOURCES.





ACHIEVEMENT LEVELS AND GOALS

AT ARIA 11040, ACHIEVEMENT LEVELS ARE A STRUCTURED SYSTEM THAT RECOGNIZES EACH MEMBER'S COMMITMENT, PARTICIPATION AND ACTIVE CONTRIBUTION TO THE TEAM. ITS PURPOSE IS TO **ENSURE OPERATIONAL SUSTAINABILITY**, ESPECIALLY REGARDING COMPETITION PARTICIPATION, **INCLUDING** FULL OR PARTIAL COVERAGE OF TRAVEL COSTS.

IT IS THE TEAM'S COLLECTIVE **RESPONSIBILITY** TO MAKE SURE THERE ARE ENOUGH OPPORTUNITIES FOR EVERY MEMBER TO REACH THE ESTABLISHED ACHIEVEMENTS. WHILE THE LEADERSHIP TEAM PROVIDES DIRECTION AND SUPPORT, STUDENTS, PARENTS AND MENTORS ARE ALL EXPECTED TO HELP CREATE AND CARRY OUT THOSE OPPORTUNITIES.

HOWEVER, REACHING THE ACHIEVEMENTS IS AN INDIVIDUAL RESPONSIBILITY. EACH MEMBER MUST TAKE A PROACTIVE ROLE, JOINING AND EVEN LEADING ACTIVITIES THAT HELP HER MEET THE REQUIRED GOALS.

LEADERSHIP KEEPS A CHECKLIST TO TRACK EACH MEMBER'S PROGRESS.

WHY FUNDRAISING MATTERS

FUNDRAISING IS A CORE PILLAR OF ARIA 11040'S OPERATION. THE FUNDS RAISED COVER REGISTRATION, ROBOT CONSTRUCTION, MATERIALS, LOGISTICS AND COMPETITION PARTICIPATION. THE MORE WE RAISE TOGETHER, THE SMALLER THE INDIVIDUAL CONTRIBUTION NEEDED FOR TRAVEL. THAT IS WHY EVERY MEMBER IS EXPECTED TO TAKE AN ACTIVE PART IN THESE ACTIVITIES.

FUNDRAISING CREDIT REQUIREMENTS

TO MEET THE ACHIEVEMENT LEVELS, THESE MINIMUM REQUIREMENTS APPLY:

- NEW MEMBERS: EARN AT LEAST 3 FUNDRAISING CREDITS DURING PRESEASON.
- RETURNING MEMBERS: EARN AT LEAST 5 FUNDRAISING CREDITS IN THE SAME PERIOD.

THESE CREDITS ARE REQUIRED TO ACCESS COMPETITION-RELATED BENEFITS.

HOW CREDITS ARE AWARDED

CREDITS ARE AWARDED BASED ON THE ECONOMIC IMPACT OF FUNDRAISING ACTIVITIES ORGANIZED BY MEMBERS:

- FUNDS RAISED
- UP TO \$300 USD: 2 CREDITS
- \$500 USD OR MORE: 3 CREDITS
- \$800 USD OR MORE: 4 CREDITS
- \$1,000 USD OR MORE: 5 CREDITS (MAXIMUM PER ACTIVITY)

WHEN AN ACTIVITY NEEDS TWO OR MORE MEMBERS TO ORGANIZE IT, THE CORRESPONDING CREDITS ARE AWARDED TO EACH OF THEM, RECOGNIZING TEAMWORK.

LIKEWISE, **PARENTS** WHO ORGANIZE FUNDRAISING ACTIVITIES CAN EARN CREDITS FOR THEIR DAUGHTERS, STRENGTHENING FAMILY SUPPORT WITHIN THE TEAM.





FUNDRAISING GUIDELINES

ALL FUNDRAISING ACTIVITIES MUST FOLLOW THESE GUIDELINES:

- BE APPROVED IN ADVANCE BY THE LEADERSHIP TEAM AND, WHEN APPLICABLE, BY THE HOST INSTITUTION.
- BE ORGANIZED RESPONSIBLY, ETHICALLY AND IN LINE WITH THE TEAM'S VALUES.
- FOLLOW THE INSTRUCTIONS IN THE EVENTS MANUAL.

SPONSORSHIP FUNDS CAN ALSO COUNT TOWARD ACHIEVEMENTS:

- EVERY ADDITIONAL \$100 USD IN SPONSORSHIPS CAN MAKE UP FOR ANY SHORTFALL IN REQUIRED CREDITS.

GUIDELINES FOR SPONSORSHIPS AND BUSINESS ASSIGNMENT

TO KEEP OUTREACH ORGANIZED AND AVOID DUPLICATES:

- THE SPONSORSHIP AREA ASSIGNS THE BUSINESSES TO VISIT.
- A MEMBER WHO WANTS TO CONTACT A SPECIFIC BUSINESS MUST CHECK WITH THE PERSON IN CHARGE FIRST.
- VISITING BUSINESSES BEYOND THOSE ASSIGNED IS ALLOWED WITH PRIOR APPROVAL.

ALTHOUGH TEAMWORK IS ENCOURAGED, EACH MEMBER MUST MEET THE ESTABLISHED REQUIREMENTS INDIVIDUALLY.

EXAMPLE:

IF TWO RETURNING MEMBERS WORK TOGETHER, THEY MUST REACH A COMBINED TOTAL EQUAL TO 10 REQUIREMENTS (FOR EXAMPLE, VISITING 20 BUSINESSES OR RAISING \$2,000 USD).

SPONSORS ARE ASSIGNED AS FAIRLY AS POSSIBLE; HOWEVER, MEMBERS WHO ALREADY HAVE A RELATIONSHIP WITH A SPONSOR HAVE PRIORITY FOR FOLLOW-UP.

REPRESENTATION AND UNIFORM REQUIREMENTS

FOR ANY ACTIVITY TO COUNT IN THE ACHIEVEMENT SYSTEM, MEMBERS MUST REPRESENT THE TEAM PROPERLY BY WEARING THE OFFICIAL UNIFORM AT:

- COMMUNITY OUTREACH EVENTS
- FUNDRAISING ACTIVITIES
- SPECIAL EVENTS
- COMPETITIONS

NEW MEMBERS MAY WEAR PROVISIONAL CLOTHING (A DESIGNATED T-SHIRT, HOODIE OR GARMENT) UNTIL THEY RECEIVE THE OFFICIAL UNIFORM.

THE UNIFORM IS NOT ONLY A REQUIREMENT; IT IS A SYMBOL OF IDENTITY, BELONGING AND PRIDE AT ARIA 11040.

PARENT AND GUARDIAN INVOLVEMENT

AT ARIA 11040, WE RECOGNIZE THAT SUPPORT FROM PARENTS AND GUARDIANS IS ESSENTIAL TO THE TEAM'S SUCCESS AND SUSTAINABILITY. FAMILY INVOLVEMENT HELPS ORGANIZE AND RUN ACTIVITIES AND ALSO STRENGTHENS THE MEMBERS' LEARNING EXPERIENCE.

THE TEAM HOLDS MANY ACTIVITIES THROUGHOUT THE YEAR, MANY OF WHICH DEPEND ON PARENT VOLUNTEERS. THEIR INVOLVEMENT IS ALSO A CHANCE TO UNDERSTAND HOW THE TEAM WORKS AND TO HELP LOWER THE COSTS OF COMPETITION PARTICIPATION.



**WE ASK PARENTS AND GUARDIANS TO:**

- ATTEND THE OPENING INFORMATION SESSION (START OF THE CYCLE, SEPTEMBER).
- ATTEND MANDATORY PRE-COMPETITION MEETINGS (FEBRUARY TO MARCH).
- PROVIDE AT LEAST ONE MEAL DURING BUILD SEASON.

WE ALSO HOPE THEY WILL ACTIVELY HELP WITH LOGISTICS, ORGANIZATION AND ACTIVITIES WHENEVER POSSIBLE.

ACADEMICS COME FIRST

ARIA 11040 PROMOTES WELL-ROUNDED EXCELLENCE, SO MEMBERS' ACADEMIC PERFORMANCE TAKES PRIORITY OVER ANY TEAM ACTIVITY.

STUDENTS MUST MEET THEIR SCHOOL RESPONSIBILITIES BEFORE TAKING PART IN MEETINGS, EVENTS OR ACTIVITIES. FALLING BEHIND ACADEMICALLY MAY LIMIT PARTICIPATION IN THE TEAM.

TEAM CODE OF CONDUCT

AT ARIA 11040 WE FOSTER AN ENVIRONMENT BUILT ON RESPECT, INCLUSION AND COLLABORATION. EVERY MEMBER IS EXPECTED TO ACT WITH KINDNESS, PROFESSIONALISM AND TEAM SPIRIT.

BECAUSE THE TEAM INVOLVES CONSTANT WORK, SOCIAL INTERACTION AND REPRESENTATION INSIDE AND OUTSIDE OUR COMMUNITY,

THE FOLLOWING RULES APPLY:

- ALL CONDUCT RULES OF THE HOST EDUCATIONAL INSTITUTION APPLY WITHIN THE TEAM.
- EACH MEMBER IS RESPONSIBLE FOR HER BEHAVIOR, KNOWING THAT HER ACTIONS REPRESENT THE TEAM, ITS SPONSORS AND ITS COMMUNITY.
- A RESPECTFUL, POSITIVE AND COLLABORATIVE ATTITUDE IS EXPECTED AT ALL TIMES.
- INAPPROPRIATE CONDUCT SUCH AS PHYSICAL OR VERBAL AGGRESSION, DISRUPTIVE BEHAVIOR, DISHONESTY OR DISRESPECT WILL NOT BE TOLERATED.
- ACTIVE PARTICIPATION IS EXPECTED DURING TEAM ACTIVITIES; DEVICES OR UNRELATED ACTIVITIES (SUCH AS VIDEO GAMES) ARE NOT ALLOWED WHEN THEY INTERFERE WITH PRODUCTIVITY.

THE GOAL IS TO KEEP A HEALTHY, SAFE ENVIRONMENT FOCUSED ON LEARNING AND GROWING TOGETHER.

DISCIPLINARY ACTIONS

BREAKING THESE RULES MAY LEAD TO DISCIPLINARY MEASURES SET BY THE LEADERSHIP TEAM, WHICH MAY INCLUDE:

- VERBAL WARNING.
- FORMAL WRITTEN WARNING.
- TEMPORARY SUSPENSION FROM ACTIVITIES.
- RESTRICTED PARTICIPATION IN EVENTS OR COMPETITIONS.
- PERMANENT REMOVAL FROM THE TEAM IN SERIOUS OR REPEATED CASES.

MEMBERS MUST FOLLOW THE GUIDANCE OF MENTORS AND TEAM LEADERS. IF THEY DISAGREE, THEY MAY GO TO THE TEAM COORDINATION TO RESPECTFULLY EXPLAIN THEIR SITUATION.





SAFETY

SAFETY IS A CORE PRINCIPLE AT ARIA 11040: IT COMES FIRST, IT IS CONSTANT AND IT IS EVERYONE'S RESPONSIBILITY.

THESE RULES ARE MANDATORY:

- SAFETY GLASSES AT ALL TIMES IN THE WORK AREA (WORKSHOP AND PIT).
- HAIR TIED BACK AND FITTED CLOTHING WHEN WORKING WITH TOOLS OR MACHINERY.
- CLOSED-TOE SHOES IN WORK SPACES.
- EVERY MEMBER MUST ATTEND SAFETY TRAINING AT THE START OF THE SEASON.
- A SAFETY CAPTAIN WILL BE APPOINTED TO HELP SUPERVISE THESE RULES; HOWEVER, RESPONSIBILITY IS SHARED BY THE WHOLE TEAM.

MENTOR INVOLVEMENT

MENTORS ARE ESSENTIAL TO THE TECHNICAL AND PERSONAL DEVELOPMENT OF ARIA 11040. THEIR MAIN GOAL IS TO GUIDE STUDENTS TO REACH THEIR FULL POTENTIAL.

COMMITMENT

WE RECOGNIZE THAT MENTORS HAVE MANY OUTSIDE RESPONSIBILITIES; WE ONLY ASK FOR CLARITY ABOUT THEIR AVAILABILITY SO WE CAN INVOLVE THEM EFFECTIVELY.

THEY CAN TAKE PART IN AREAS SUCH AS:

- TECHNICAL AND STRATEGIC TRAINING
- FUNDRAISING
- SOCIAL IMPACT ACTIVITIES
- BUILD SEASON

THEIR INVOLVEMENT, BOTH IN AND OUT OF SEASON, MAKES THE TEAM SIGNIFICANTLY STRONGER.

LEADERSHIP

LEADERSHIP AT ARIA 11040 IS SHARED BETWEEN MENTORS AND MEMBERS. STUDENT LEADERS ARE SELECTED AT THE END OF EACH SEASON, WHICH ALLOWS FOR EARLY STRATEGIC PLANNING.

MENTORS SUPPORT LEADERSHIP DEVELOPMENT, GUIDING MEMBERS IN DECISION-MAKING AND IN GROWING THEIR AREAS.

ROLE OF PARENTS AND GUARDIANS

PARENTS AND GUARDIANS ARE AN INTEGRAL PART OF THE ARIA 11040 COMMUNITY. THEIR INVOLVEMENT STRENGTHENS STUDENT DEVELOPMENT AND HELPS THE TEAM RUN.

THEIR MAIN RESPONSIBILITIES INCLUDE:

- PROVIDING (OR COORDINATING) TIMELY TRANSPORTATION TO TEAM ACTIVITIES.
- SUPPORTING FUNDRAISING, DEMONSTRATIONS AND COMMUNITY EVENTS.
- KEEPING THE STUDENT'S MEDICAL INFORMATION UP TO DATE.
- JOINING TEAM EVENTS WHENEVER POSSIBLE.
- HELPING WITH LOGISTICS, SUPERVISION AND ORGANIZATION.

THEY CAN ALSO HELP IN ROLES SUCH AS:

- TRAVEL CHAPERONES
- EVENT ORGANIZATION
- ADMINISTRATIVE SUPPORT (MARKETING, COMMUNICATIONS, LOGISTICS, ETC.)
- MENTORING, ACCORDING TO THEIR SKILLS





PARENT INVOLVEMENT CAN POSITIVELY INFLUENCE LOGISTICAL BENEFITS, INCLUDING SUPPORT FOR TEAM TRAVEL.

ROLE OF THE COACH

THE COACH PLAYS A KEY ROLE IN ARIA 11040'S ORGANIZATIONAL STRUCTURE. HER RESPONSIBILITIES INCLUDE:

- FACILITATING COMMUNICATION BETWEEN THE TEAM AND THE HOST INSTITUTION.
- MANAGING TRAVEL PERMITS AND DOCUMENTATION.
- ENSURING COMPLIANCE WITH INSTITUTIONAL RULES.
- COORDINATING SUPERVISION DURING COMPETITIONS AND ACTIVITIES.
- SUPPORTING RECRUITMENT AND OUTREACH.
- KEEPING ORDER AND DISCIPLINE WITHIN THE TEAM.
- MANAGING KEY DOCUMENTS (MEDICAL FORMS, PERMITS, ETC.).

OFFICIAL MEMBERSHIP APPLICATION

EVERY STUDENT MUST COMPLETE AN APPLICATION TO JOIN THE TEAM. ALL APPLICATIONS MUST BE SUBMITTED BEFORE THE SET DEADLINE. STUDENTS WHO HAVE NOT SUBMITTED A COMPLETE APPLICATION WILL NOT BE ABLE TO ATTEND TEAM OR AREA MEETINGS AFTER THE DEADLINE.





TEAM STRUCTURE

CENTRAL STEERING COMMITTEE

THE STEERING COMMITTEE IS MADE UP OF THE TEAM CAPTAIN, THE LEAD MENTORS, THE AREA LEADS AND THE TEAM COACH.

MEMBERS WHO ARE NOT ON THE STEERING COMMITTEE AND HAVE CONCERNS, QUESTIONS OR SUGGESTIONS CAN SHARE THEM WITH THEIR AREA LEAD OR THE COACH, AND THEY WILL BE DISCUSSED AT THE NEXT COMMITTEE MEETING.

REGULAR MEETINGS

THE STEERING COMMITTEE MEETS EVERY TWO WEEKS FOR 1 TO 2 HOURS THROUGHOUT THE YEAR. SOME MEETINGS MAY BE CANCELED FOR HOLIDAYS OR SIMILAR REASONS, AT THE HEAD COACH'S DISCRETION AND DEPENDING ON ATTENDANCE. MEETING TIMES ARE SET BY COMMITTEE MEMBERS' AVAILABILITY.

LEADERSHIP RESPONSIBILITIES

- THE STEERING COMMITTEE OVERSEES:
- CREATING AGENDAS AND LEADING TEAM MEETINGS.
- ORGANIZING THE PRESEASON CURRICULUM.
- MAKING TEAM DECISIONS (INCLUDING, BUT NOT LIMITED TO, WHETHER TO TAKE PART
- IN ROBOT DEMONSTRATIONS, FIRST OUTREACH ACTIVITIES, RULE CHANGES,
- ETC.).
- CREATING A DATABASE WITH MEMBERS' CONTACT INFORMATION, AS WELL AS THEIR
- STATUS (NEW OR RETURNING STUDENT) AND MAIN AREA.
- MAINTAINING THE TEAM CALENDAR.
- ENSURING THE PROPER FLOW OF TEAM RESOURCES.

PROCESS FOR ELECTING LEADERS

AT THE END OF EACH COMPETITION SEASON, THE STEERING COMMITTEE INVITES SENIOR STUDENTS TO RECOMMEND CANDIDATES FOR NEXT YEAR'S TEAM CAPTAIN. THE STEERING COMMITTEE MAKES THE FINAL DECISION. THE CAPTAIN IS USUALLY A SENIOR UNLESS A BETTER-PREPARED MEMBER IS IDENTIFIED.

THE CAPTAIN ROLE MAY BE SHARED BY TWO MEMBERS.

SELECTION CRITERIA FOR TEAM CAPTAIN INCLUDE:

- ABILITY TO LEAD BY EXAMPLE AND SERVE AS A ROLE MODEL FOR TEAM MEMBERS
- A POSITIVE, ENTHUSIASTIC ATTITUDE AND A WELCOMING APPROACH TOWARD NEW MEMBERS
- COMMITMENT TO MAKING SURE EVERY MEMBER FEELS INCLUDED AND CONTRIBUTES TO THE TEAM
- AVAILABILITY TO PROMOTE FIRST AND THE TEAM AT KEY COMMUNITY OUTREACH AND FUNDRAISING PRESENTATIONS
- AVAILABILITY TO ATTEND MOST TEAM MEETINGS AND ACTIVITIES (70% OR MORE)





THE STEERING COMMITTEE (INCLUDING THE NEW CAPTAIN) INVITES SENIOR STUDENTS TO RECOMMEND CANDIDATES FOR NEXT YEAR'S AREA LEADS. THE STEERING COMMITTEE MAKES THE FINAL DECISION. AREA LEADS ARE USUALLY SENIORS. THE ELECTION TAKES PLACE THE FIRST WEEK AFTER THE FIRST CHAMPIONSHIP.

IN BOTH PRESEASON AND BUILD SEASON, EACH TEAM AREA APPOINTS AN AREA LEAD AND A LEAD MENTOR TO OVERSEE PROGRESS REPORTS AND COORDINATION WITH THE OTHER AREAS.

IMPACT

- WRITE THE IMPACT AWARD ESSAY AND EXECUTIVE SUMMARY.
- CREATE THE IMPACT PRESENTATION FOR THE JUDGES.
- PRODUCE THE IMPACT VIDEO.
- SELECT THE IMPACT PRESENTERS.
- GATHER ALL THE DATA NEEDED FOR THE IMPACT PRESENTATION.

MECHANICAL (ENGINEERING)

- LEARN CAD. DESIGN AND BUILD THE PRESEASON DRIVETRAIN.
- DESIGN AND BUILD THE PRESEASON MECHANISM.
- REVIEW LAST YEAR'S COMPETITIONS FOR IDEAS.
- CLEAN UP AND REBUILD MECHANICAL SYSTEMS FROM PAST ROBOTS.
- STUDY OTHER TEAMS' ROBOT DESIGNS FOR IDEAS.

ELECTRONICS/PNEUMATICS (ENGINEERING)

- BUILD A PRESEASON PROTOTYPE BOARD.
- LEARN MOTOR CHARACTERISTICS.
- LEARN THE WIRING DIAGRAM.
- LEARN PNEUMATICS RULES (IF WE PLAN TO USE THEM THIS SEASON).
- BUILD A PNEUMATICS DEMO (IF WE PLAN TO USE THEM THIS SEASON).
- CLEAN UP AND REBUILD ELECTRICAL SYSTEMS FROM PAST ROBOTS. EXPERIMENT WITH SENSORS.

PROGRAMMING (ENGINEERING)

- LEARN THE PROGRAMMING LANGUAGE CHOSEN FOR THE SEASON.
- ANALYZE AND UNDERSTAND LAST YEAR'S CODE.
- MODIFY AND IMPROVE CODE FROM PAST ROBOTS.
- DEVELOP AUTONOMOUS MODE TECHNIQUES.
- WRITE CODE FOR EVERY AVAILABLE SENSOR.

Sponsorships

- ORGANIZE AND OVERSEE FUNDRAISING ACTIVITIES.
- MANAGE THE SPONSOR CAMPAIGN AND BUILD THE SPONSORSHIP BOOK.





IMAGE

- DESIGN TEAM SHIRTS AND BUTTONS. DOCUMENT EVERY TEAM MEETING AND EVENT WITH PHOTOS AND VIDEO.
- UPDATE SOCIAL MEDIA. CREATE RECRUITMENT AND PROMOTIONAL VIDEOS.
- DEFINE SUBMISSIONS AND CRITERIA FOR OTHER AWARDS (WOODIE FLOWERS FINALIST AWARD, TECHNICAL AWARDS, ETC.) AND HELP THE TEAM EARN THEM.
- UPDATE WEBSITE CONTENT.
- CREATE FLYERS, BROCHURES, NEWSLETTERS AND MARKETING MATERIALS.
- RECRUIT NEW MEMBERS.
- MAINTAIN THE STUDENT HANDBOOK.
- TRACK STUDENT AND TEAM ACHIEVEMENTS.
- HELP WITH ANIMATION AND ANIMATED PRESENTATIONS WHEN NEEDED.

Events

- Organize FIRST outreach events.
- Create new FIRST outreach initiatives. Organize fundraising events with the Sponsorship area (class trips, summer camp, etc.).
- Plan team travel to events and competitions (competition travel must be organized at least five months in advance).

Finance

- Review, adjust and approve each area's budget.
- Manage the income and expense database.
- Set sponsorship goals based on approved budgets.
- Authorize, with the Steering Committee, the release of funds to each area.

Sales

- DEFINE THE PRODUCTS TO SELL DURING PRESEASON TO RAISE FUNDS.
- HANDLE PERMITS AND SET LOCATIONS AND SCHEDULES FOR SALES ACTIVITIES.

STRATEGY TEAM / DRIVE TEAM

- REVIEW AND LEARN LAST YEAR'S RULES.
- DECIDE THE METHODS FOR DEVELOPING STRATEGY.
- TRAIN DRIVERS AND HUMAN PLAYERS.
- DEVELOP SCOUTING STRATEGIES AND SOFTWARE/DATABASE.





COMMUNICATION

THE TEAM USES SEVERAL CHANNELS TO KEEP EVERYONE INFORMED. A WEEKLY EMAIL GOES OUT TO ALL MEMBERS.

ALL EVENTS WILL BE POSTED ON THE TEAM CALENDAR ON OUR WEBSITE ONCE IT LAUNCHES.

WE USE **MICROSOFT TEAMS** FOR TEAM-WIDE MESSAGES, GROUP CHATS AND FILES, WHICH HELPS WITH QUICK QUESTIONS AND CONVERSATIONS THAT DO NOT FIT **EMAIL**. THE IMAGE AREA AND THE STEERING COMMITTEE CREATE AND DISTRIBUTE A TEAM NEWSLETTER TO KEEP THE WIDER COMMUNITY INFORMED ABOUT WHAT THE TEAM IS WORKING ON, SHARE INTERESTING TOPICS AND PUBLISH THE ACTIVITY CALENDAR.

DAY-TO-DAY COORDINATION HAPPENS IN THE TEAM **WHATSAPP COMMUNITY**.

FUNDRAISING PROCESS

INTRODUCTION

THE PLAN SETS EFFECTIVE FUNDRAISING STRATEGIES TO COVER COSTS SUCH AS:

- COMPETITION REGISTRATION
- MATERIALS AND ELECTRONIC COMPONENTS
- TRANSPORTATION AND LODGING
- UNIFORMS AND OUTREACH

MERCHANDISING

DESCRIPTION: SALE OF TEAM PRODUCTS.

EXAMPLES:

- T-SHIRTS
- HOODIES
- STICKERS
- TUMBLERS





CONTENT PROTECTION AND INTELLECTUAL PROPERTY

PURPOSE

ARIA 11040 VALUES THE KNOWLEDGE, MATERIALS AND METHODS DEVELOPED BY ITS MEMBERS, MENTORS AND PARTNERS. THIS SECTION SETS THE CONDITIONS FOR RESPONSIBLE USE OF CONTENT CREATED OR SHARED BY THE TEAM.

PROTECTED CONTENT

ARIA 11040 MATERIALS INCLUDE, AMONG OTHERS:

- CLASSES, TRAINING SESSIONS, PRESENTATIONS AND WORKSHOPS.
- MANUALS, DOCUMENTS, GUIDES AND TEACHING METHODS.
- EXERCISES, ACTIVITIES AND LEARNING MATERIALS.
- GRAPHICS, ILLUSTRATIONS, PHOTOS, VIDEOS AND DIGITAL RESOURCES.
- MATERIALS DEVELOPED SPECIFICALLY FOR A TEAM TRAINING OR PROJECT.

SHARING A MATERIAL PUBLICLY OR DURING A TRAINING SESSION DOES NOT GRANT PERMISSION TO TAKE IT, REPRODUCE IT OR PRESENT IT AS ONE'S OWN.

UNAUTHORIZED USE

WITHOUT EXPRESS PERMISSION FROM ARIA 11040 AND/OR THE CORRESPONDING AUTHORS, IT IS NOT ALLOWED TO:

- COPY CONTENT DEVELOPED BY THE TEAM IN FULL OR IN SUBSTANTIALLY SIMILAR FORM.
- TEACH A CLASS USING ARIA 11040 MATERIAL AS IF IT WERE ONE'S OWN.
- REDISTRIBUTE, SELL, PUBLISH OR MODIFY THE MATERIALS TO PRESENT THEM AS AN INDEPENDENT CREATION.
- REMOVE, HIDE OR REPLACE EXISTING CREDITS, AUTHORSHIP OR REFERENCES.
- USE INTERNAL MATERIALS OUTSIDE THE PURPOSE FOR WHICH THEY WERE PROVIDED.

CHANGING COLORS, DESIGN, ORDER, NAMES, EXAMPLES OR FORMAT DOES NOT MAKE SUBSTANTIALLY COPIED CONTENT ORIGINAL.

AUTHORIZED USE AND ATTRIBUTION

ARIA 11040 ENCOURAGES KNOWLEDGE SHARING WITHIN THE FIRST AND STEAM COMMUNITY. OUR MATERIALS MAY BE USED FOR EDUCATIONAL OR COLLABORATIVE PURPOSES WITH PRIOR CONSENT. WHEN REUSE IS AUTHORIZED, ATTRIBUTION MUST BE KEPT AND THE CONDITIONS SET BY ARIA 11040 AND/OR THE AUTHORS MUST BE RESPECTED.

TAKING PART IN A TRAINING, RECEIVING A DOCUMENT OR ACCESSING A RESOURCE DOES NOT BY ITSELF GRANT PERMISSION TO REPRODUCE, TEACH OR REDISTRIBUTE IT.

AUTHORSHIP RECORDS

TO PROTECT ITS MEMBERS' WORK, ARIA 11040 MAY KEEP RECORDS OF VERSIONS, CREATION DATES, AUTHORS, SOURCES AND MATERIALS USED IN ITS TRAININGS AND PROJECTS. THESE RECORDS ESTABLISH WHERE CONTENT CAME FROM AND HOW IT WAS DEVELOPED.

VIOLATIONS

IN CASE OF POSSIBLE UNAUTHORIZED USE, ARIA 11040 MAY REQUEST:

1. PROPER CREDIT FOR AUTHORSHIP.
2. CHANGES TO, OR REMOVAL OF, MATERIAL USED WITHOUT PERMISSION.
3. SUSPENSION OF ITS DISTRIBUTION OR PRESENTATION.
4. A PUBLIC OR PRIVATE CLARIFICATION OF THE CONTENT'S ORIGIN, WHEN NEEDED.
5. ESCALATION TO THE RELEVANT PEOPLE, ORGANIZATIONS OR AUTHORITIES WHEN WARRANTED.

ACTIONS WILL CONSIDER THE NATURE, SCOPE AND CONTEXT OF THE UNAUTHORIZED USE.





COLLABORATION PRINCIPLE

ARIA 11040 ENCOURAGES SHARING KNOWLEDGE TO STRENGTHEN THE ROBOTICS COMMUNITY. SHARING KNOWLEDGE DOES NOT MEAN GIVING UP AUTHORSHIP. COLLABORATION SHOULD BE BUILT ON RECOGNITION, CONSENT AND RESPECT FOR THE PEOPLE WHO CREATE THE MATERIALS.

GENERAL RULE:

IF YOU ARE NOT SURE WHETHER YOU CAN USE, COPY, ADAPT, TEACH OR REDISTRIBUTE AN ARIA 11040 MATERIAL, ASK FOR PERMISSION FIRST.

