

ENIGROBOTS



5th Edition
ENIGROBOTS

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"Death by my hand."



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I. Introduction

1. ENIGROBOTS

In recent years, robotics has grown in importance in various fields and has become an important science that continues to evolve.

In this context, the **National Engineering School of Gabes** presents its first edition **ENIG ROBOTS 5.0** with the aim of promoting technical and scientific education.

This meeting is intended for robotics enthusiasts of all ages and for people who want a challenge especially in a competition where everyone else gives all their efforts to conquer other opponents. So, we will give you this opportunity to show us your guts in our challenge **ENIG ROBOTS**.

The event will take place on the **18th of February**, within the **National Engineering school of Gabes**.

ENIG ROBOTS team wants you to go all out and prove your dominance with your strong and bright inventions. We welcome you to our home.

The challenges awaiting you are:

- Line follower and maze
- All terrain
- **Noxus (death ring)**
- Junior

BE PREPARED ...



2. The DEATH RING COMPETITION:

Noxus, a bastion of martial prowess and relentless ambition, extends its influence through a diverse and dynamic society. Within its borders, the pursuit of power takes on multifaceted forms, with individuals rising to prominence based on their unique strengths and abilities. This cultural diversity weaves a rich tapestry, creating a society where innovation and adaptability are highly valued.

One manifestation of Noxian innovation lies in its fascination with advanced technology. At the heart of this lies the "**Noxus Arena**," a cutting-edge robot combat arena that parallels the intensity of battles fought on the empire's military front. The arena serves as a proving ground for technological advancements, where engineers and inventors showcase their creations in a gladiatorial spectacle.

In the **Noxus** Arena, combatants enter with robotic creations, each a testament to the empire's technological prowess. These battles are not only a display of engineering brilliance but also a reflection of the Noxian spirit – a relentless pursuit of victory and the relentless desire to outmatch opponents. The clash of metal and circuitry in the arena echoes the empire's broader ethos of conquering challenges through sheer strength and ingenuity.

Noxus, known for its aggressive expansion, has extended its influence into the world of robotic combat. The arena not only entertains the citizens but also serves as a platform for technological exchange, fostering an environment where the brightest minds from various backgrounds come together in pursuit of victory and progress.

In this way, the **Noxus** Arena symbolizes the convergence of martial might and technological innovation, offering a unique perspective on the empire's ethos and its commitment to staying at the forefront of progress in the ever-evolving landscape of **League of Legends**.



3. NOXUS

The competition consists of fights between two robots in a closed battle arena equipped with powerful weapons, which reflects the need to design robots capable of resisting these weapons.

This competition requires the presence of robots equipped with mechanical weapons capable of damaging the opponent while adhering to the safety rules.

Join in and be one of the Pros who tried the Magma Chamber map.





4. REGISTRATION

Each team consists of no more than **3Participants**.

Each group must have a team leader who must be present on the day of the competition to perform the homologation of the robot.

It is strictly forbidden to participate in a single Challenge several times. But, it is allowed to participate in several challenges at the same time.

The team leader will be informed of the payment procedures and of the validation of the registration by email after completing the registration form that will be available on our Facebook page.

The inscription fee for each participating team is set at **70 dt**

NB

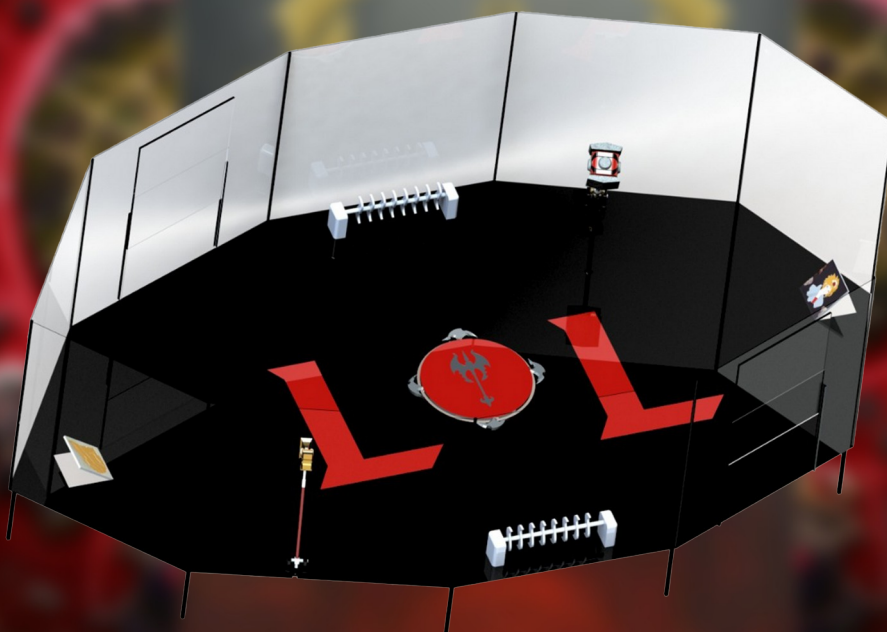
Acceptance and compliance with the registration conditions are essential to validate your registration and participation.



III. Competition's Battlefield

1.Area of the game

Our battlefield this year will be presented with a new look and a new area inspired by the **catalyst of Aeons** item.



The combat area is **8.5*4.5** risen above the ground by **750mm** surrounded by a cage with a height of **2m**





2.Weapons

2.1 Decimate

Description

Darius's character is deeply ingrained in the lore of Noxus, and he serves as a symbol of the empire's martial strength and unyielding resolve. His presence on the battlefield is both feared and respected, making him a central figure in the ongoing narrative of League of Legends.



"Noxians aren't made.They're born...and then made by me" **Darius**

Functioning

After **30 sec** from the start of the game, Darius swings his axe in a wide arc, dealing damage to all nearby enemies. If he hits the enemies at the outer edge of the ability range, they take additional damage and are also slowed. The ability has a sweet spot on the outer edge that enhances its damage output.



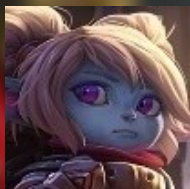


2.2 Hammer Of Orlon

Description

☞ Runeterra has no shortage of valiant champions, but few are as tenacious as **Poppy**.

Bearing the legendary hammer of Orlon, a weapon twice her size, this determined yordle has spent untold years searching in secret for the fabled "**Hero of Demacia**," said to be its rightful wielder. Until then, she dutifully charges into battle, pushing back the kingdom's enemies with every whirling strike.



"I'm no hero. Just a yordle with a hammer." **Poppy**

Functioning

The Hammer starts functioning after 10s from the start of the combat and starts striking when the robot is within its danger zone with a frequency of 1 strike per 3 seconds.

In case of the **2 robots** being in the danger zone at the same time, the hammer starts striking both of them while keeping its frequency of attack and causing the same damage for each one



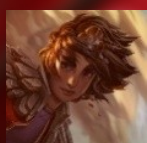


2.3 SEISMIC SHOVE

Description

Taliyah is a nomadic mage from Shurima, torn between teenage wonder and adult responsibility. She has crossed nearly all of Valoran on a journey to learn the true nature of her growing powers, though more recently she has returned to protect her tribe. Some have mistaken her compassion for weakness and paid the ultimate price—for beneath Taliyah's youthful demeanor is a will strong enough to move mountains, and a spirit fierce enough to make the earth itself tremble.

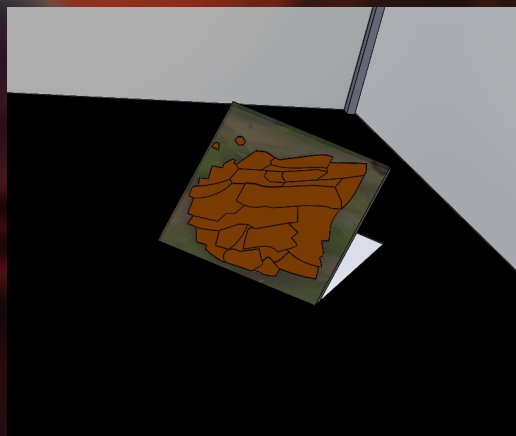
So when you get close to her, Taliyah uses her ability "SEISMIC SHOVE" to causes an area of ground to erupt and throws enemies within it in a direction of her choosing.



*"Even the smallest stone can start an avalanche
and Every tapestry begins with a single stitch "*

Functioning

From the start of the battle, Taliyah is ready to attack after 20s from the start of the battle , if any robot stands within its danger zone, she gets really angry and reacts very quickly.





2.4 Mercury Hammer

Description

Jayce is a brilliant inventor who has pledged his life to the defense of **PILTOVER** and its unyielding pursuit of progress. With his transforming hextech hammer in hand, Jayce uses his strength, courage, and considerable intelligence to protect his hometown. While revered throughout the city as a hero, he hasn't taken well to the attention it brings. Still, Jayce's heart is in the right place, and even those who envy his natural skills are grateful for his protection in the City of Progress.

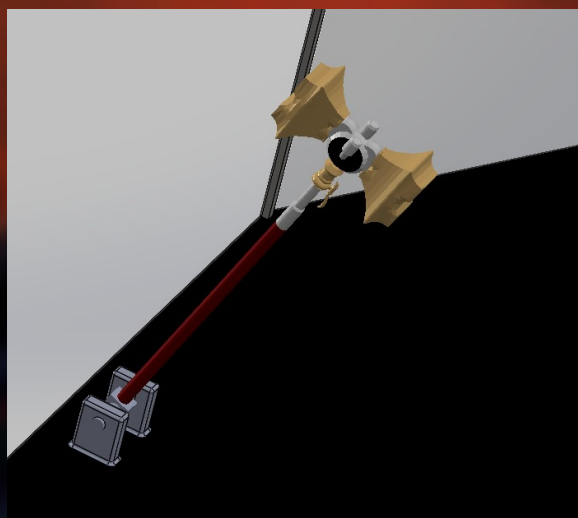


"Picking a fight with me is the dumbest thing you've done today - and that's saying a lot." — Jayce

Functioning

just like the Hammer Of Orlon, Mercury Hammer starts striking when the robot is within its danger zone with a frequency of **1 strike** per **3 seconds**.

In case of the **2 robots** being in the danger zone at the same time, the Mercury Hammer starts striking both of them while keeping its frequency of attack and causing the same damage for each one.



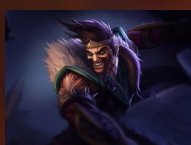


2.5 Spinning Axes

Description

In Noxus, powerful warriors, the "arenarians", compete in deadly games to entertain the public. Blood flows in abundance and their strength is tested, but none of them has ever been as famous as Draven. This former soldier found that audiences particularly appreciated his showmanship, not to mention his skill with twirling axes. Infatuated with his own perfection, Draven defeats all his opponents to ensure that his name continues to resonate in the arenas of the empire.

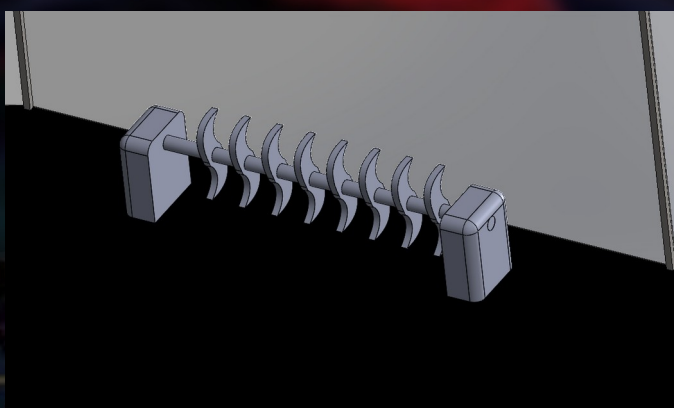
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"Welcome to the League of Draven."

Functioning

By the beginning of the fight , Draven start spinning his first massive axe in the target direction and deal damage to enemies hit and after **1 min** the other axe starts spinning





IV. RULES

A-general RULES

L The competition is open to all students attending a school (public or private schools) or an approved community group.

⚠ Please check with the coordinator if you have a question.

L Teams will be made up of **3 Participants** each.

L It should be noted that the homologation will be strict and without exceptions.

L Registration and homologation of the robot is done only by the team leader and one of his teammates.

L Each team can only homologate one robot.

L Testing on the playing area before the start of the competition is prohibited.

L A draw is made on the day of the competition for the selection of competitors.

L Only the team leader is allowed to present his robot in front of the judges (and a partner if the robot is controlled by two persons).

L In case of a delay the team leader has only **2 minutes** to present his robot in front of the judges.

L No modifications are allowed after the robot's homologation, only maintenance.

L The team leader must present the homologation's sheet given to him when presenting the robot in front of the judges.

L Only the team leader can discuss with the coordinator or to claim about something



ATTENTION



The competing order will be fixed by a draw the day of the event.



The robots' place of entry will also be fixed by a draw.



The moving of the robot between the jury's table to the battle area is the organization's committee responsibility with the presence of the team leader.



Any unsporting or immoral behavior towards other participants, organizers, spectators and juries causes immediate disqualification of the team.






B. FIGHTER

The dimensions of the robot must respect the following constraints:

Weight: The maximum weight of the robot is **60kg**

Dimensions




-  Length: 650mm
-  Width: 650mm
-  Height: 600mm



Dimensions taken with an open arm.

No tolerance is accepted

It is strictly forbidden to use:

-  Electrical shock
-  Water jet
-  Inflammable or toxic substances



Energy source:

Any type of power source is allowed except those who are based on chemical reactions.

Batteries must be attached.

Since you can play several matches, prepare an energy reserve

Warning:



Choose carefully the suitable wires for the current flowin through them.



Ensure the protection of your wiring.



C. APPROVAL

During the homologation, and after passing the dimensions and weight verification, the participants will be obliged to accompany their robot with a technical proof, which will be noted, describing the technical design of the presented robot:

- Overall evaluation of the presentation of the technical file **20 pt (20pt for a complete and all well-organized presentation)**
 - Mechanical concept (The design must be built with SOLIDWORKS or Catia.) **20pt**
 - Electrical wiring diagram **20pt**
 - The design and the making of the electronic power card (A PCB design image is required to prove the design) **30pt**
 - The design and the making of the electronic control card(A PCB design image is required to prove the design) **30pt**
 - The design and the making of the remote control(A PCB design image is required to prove the design) **30pt**
- Compliance with the theme **10pt**



Fighters specification :



Dynamic arm. **50 pt**(for every arm)

In case of the use of two joysticks one for moving and the other for controlling the weapons. The participant must verify if their robot is controllable by two joysticks before the game.



ON/OFF button is obligatory.

The interior of the robot must be accessible by the homologator.



The echnical file is obligatory for each team (technical file contain the name of the robot, participants names, real photos,...)



An arm is considered dynamic only when it work at the homologation





D. COMBAT RULES

- 1- Each match lasts **5 minutes** .
- 2- Only the team leader is allowed to access the arena's perimeter unless more than one person is required to control the robot.
- 3- Each competitor must enter his robot from his allocated place of Entry.
- 4- When put on the combat area each competitor is allowed **1 min** to switch on his robot.
- 5- After the robot is put on the combat area and the doors are closed no further intervention is allowed.
- 6-For the start signal, there is a bell, participants should not move their robots before the start bell rings.
- 7- Each manual weapon fixed in the arena will only be activated when the robot reaches its range of action.
- 8-The final decision regarding the winner will always be up to the Judges No rematches are allowed.
- 9- The combat will be considered finished in **2 cases**:
 - ◆ The combat's time is over
 - ◆ One of the competitors has with drawn



ATTENTION !



If one of the two robots moves before the signal, the participant will receive a warning.



The jury's decision is indisputable



The robot is considered immobile when no movement along the X/Y axis for **30s**



A robot is considered immobile if the participant cannot control it for **30s**



A robot blocked by a weapon or by a part of the arena is considered immobile



A team is declared defeated if its robot attacks its opponent before the referee's kick-off




The team wins if its opponent raises their hand towards the jury





In the final match, the supporters are not allowed to access to the ring area unless the winner is announced by the jury





E-DRAW RULES

 At the beginning of the combat if both robots remain immobile for more than **30secs**, the match will be paused for **2 minutes** for maintenance

 In case both robots become immobile in the middle of the combat the result is considered as a draw otherwise the last robot that has stopped is considered the winner.

 In case of a draw two minutes will be added to the playing time

 In case of a second draw, the robot with the higher **(fighter points+approval points)** will be the winner.

 In case of an other draw, the robot with the less weight will be the winner.

Fighter points:



Damage: is judged based on the frequency, severity and boldness of attacks deliberately initiated by the robot against its opponent



10pt



Control: how well it moves to advantageous locations and how well it avoids opposing weapons and

Arena HAZAR



10pt



IV.CONTACT

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HF ...