Dunakavics

A Dunaújvárosi Egyetem online folyóirata 2018. VI. évfolyam VII. szám

Műszaki-, Informatikai és Társadalomtudományok

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Tartalom

LAMA ALDAYOUB *

The Big and Small Thoery in Abstract Art

Összefoglalás: Az absztrakt művészet a legfélreértelmezettebb a modern művészeti ágak között különösen, és a művészeti ágak között általában. Mindig úgy tartották, hogy olyasmi, ami láthatólag nem létezik, nevezték túlzónak és illették egyéb elítélő jelzőkkel, sajnos időnként maguk a művészek is. Ez a tény a művészekre és a kiállítókra nézve egyaránt felelősséggel jár, azonban a tudományból sok érdekességet vesz át, amely megmutatja, hogy milyen egyszerű és kreatív lehet az absztrakt művészet, mint egy világos és egyszerű vizuális nyelv, amely a látható világunk része és amely mindennek és mindenhol része lehet.
Kulcsszavak: Nyelv, modern művészet, tudomány, kreatív, vizuális, absztrakt.

Abstract: Abstract art was mostly the most misunderstood genre between all modern art genres especially, and all art genres generally, always has been taken as something does not visually exist, called overrated and many other judgmental names even from artists sometimes unfortunately, the thing that put some responsibility on artists as well as a presenters for the different visual art genres , however, so many interesting captions that have been taken from the science world , can show how simple and creative can be abstract art, as a clear and simple visual language that exist in our visual real world, and can be a part of everything in everywhere.
Keywords: Abstract, modern art, science, creative, visual language.

* *Dunaújvárosi Egyetem, Társadalomtudományi Intézet, egyetemi hallgató*
E-mail: lama.161995@hotmail.com

Art… is that unique and common language that everybody and nobody understand, but for sure everybody shares.
The intersting part about art is that it doesn't have any rules,the only rule to make a good art is to make something differernt.
And the human's mind always asks "why", sience took the responsibility to answer.
Plato says that knowledge was found before human beings. We actually do not invent anything! We only discover it!
The proof is the number of many inventions, theroies, creations.. etc. that so many people discover it many different times. Or for which reason the "copy rights" idea was made for?
There is also a group of scientists who said that there is "no imagination" , the things which means that everything we creat has a related reference that we must know somehow in our real world, sounds logical if we thought about the possibiltiy to imagin a colour that doesn't exist in the nature.
And between all visaul arts, abstract art was mostly the most misunderstood type of arts, always taken as something does noy exist, but so many captions were taken from the science world show how amazing and simple is abstract art, as a clear visual language which is a part of everything and everywhere, as "The big and small theory" will scientifically and according to the abstract art concept prove that.

Why The Big and Small Theory?

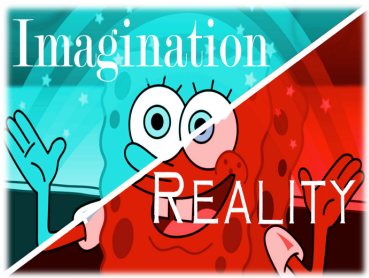
Art it self is an abstract language for so many people, while science is a simple logical language that anyone whould understand, and in order to clearfy art, make it more understoodable to everyone, this theory came to see the light.

In my experience as a visual artist and as an exhebition planner in many galleries, I have noticed that so many people, even those who used to visit art galleries they misunderstand the real concept of abstract art.

What do people usually think about abstract art and what is abstract art for real?

My carrer life allowed me to meet many art lovers, unfourtunitly I was hearing many judgemental descriptions about abstract art, such like it is overrated or a modren type of money loundering, or even things like a randomly made, not professional enough, or only those who can not really draw and paint make abstract art, even those who pretned to appreciate abstract art they mostly call it "metaphiscal" which is not necesserally true.

These descriptions all are not suitable with the concept of abstract art which says: **„It's a visual art uses a visual language of shapes, forms, colors, and lines to create something may exist witha degree of independence from visual reference in the real world."** [1]



Between Imagination and Reality

A simple comparasion between imaginative pictures and reality pictures from other art schools can show a lot about the visual reference that we disscussed in the concept of abstract art, there is no colour, scean or shape that has no visaul reference from the reality world, creation exists but every thing we creat has a reference related to our own knowledge, simpely because knowledge was found before us.

Take a look to these extremly very proffessional painted or drawn pictures:

Source: http://www.mirartegaleria.com/2013/05/oleos-hiperrealista-de-simon-hennessey.html
https://steemit.com/spanish/@kyate/esta-bien-sentirse-mal

[1] Rudolph Arnheim (1969): *Visual Thinking.* University of California Press.

[2] „Abstract Art – What Is Abstract Art or Abstract Painting, retrieved January 7, 2009"

[3] *The psychology of Gestalt.* 2009.

Both of the pictures present an extremly realiable drawn eye almost like a photoshot, I would personally say that the people who did these are extremly professional and there is no doubt about their painting and drawing skills, but they are only a very good painters not a very good artist, as long as art is about creating the new thing.

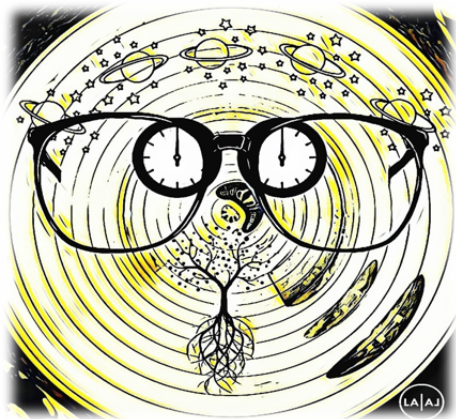
Picture painted by Moulham Obied

Taking a look to this picture, it includes an eye, what make us know that this is an eye even when it doesn't look real?

Because we have a visual reference to it in our visual memory, makes us know that this is an eye.

According to "Gestalt theory" in visual perception, our minds can complete a whole picture even if some parts of it are missing (without ignoring that all human's eyes has a blind boint) , our minds also can classify shapes and colours according to our visual knowledge and visual memory, even if what we see doesn't look real. [3]

That simply explain the way we treat art works which belongs to different art schools ,and how we understand a specifec scean.



Picture digital painting by Lama Aldayoub

Picture painted by Moulham Obied

These pictures are exemples about how we connect every visual knowledge we got from real world next to the emotions to creat a whole visual scean.

So What About Abstract Art? What is the "Visual Reference" in it?

In abstract art as in any visual art we have a visual reference from the real world to it, but it is either too big or too small for our human eye lences.

And this is what leads us to the **BIG** and **small** *Theory*.

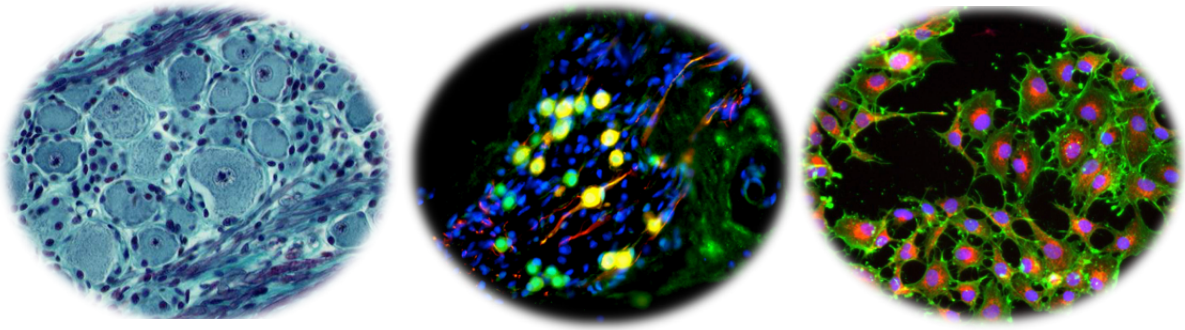
Which says:

„The visual reference from reality in abstract art is either too big or too small for the normal human eye lences to catch it, but it does exist, and it can be either a huge group of a small elements that make and form all togeather an average visible object for the human eye lences, or a very big object that is made from a huge group of the average visible objects for the human eye lences."

According to this we as humans might be the „big" in the first case, or the „small" in the second case.

Still not clear enough? Let's move to some intersting exemples.

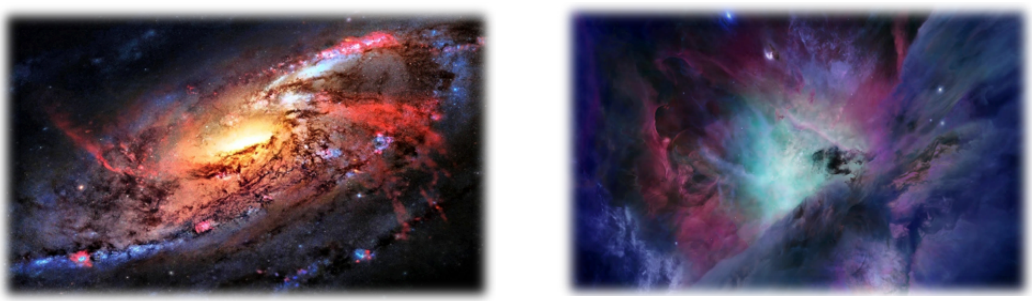
The **small** Exemples when we are **BIG**:

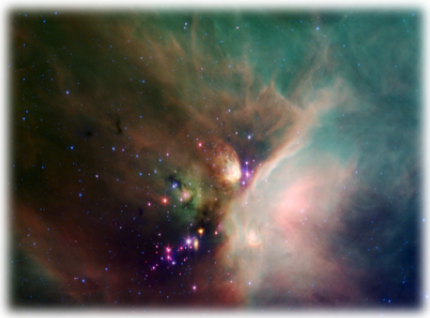


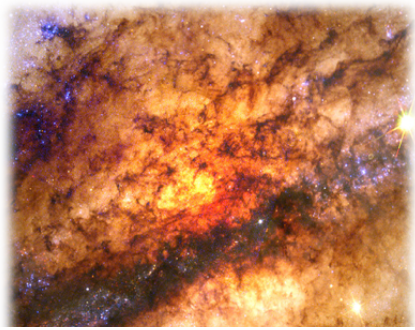
Source: http://www.dailymail.co.uk/sciencetech/article-2579010/The-beauty-CELLS-Stunning-images-lifes-building-blocks-microscope-set-light-Times-Square.html
https://geneticliteracyproject.org/2014/04/02/ancient-viral-dna-may-play-key-role-in-how-human-stem-cells-work/

These actually are not some painted abstract pictures by some famous artists, these are real photo shots taken using special microscope lences, these are parts of our human bodies because these are our human body cells! They togeather under this mecroscope lence create this abstract scean, and togeather visually and visibly create each one of us!

The **BIG** Exemples when we are **small**:







Source: Pictures ceiling galaxy paint

These also are not some painted abstract pictures by some famous artists, these are real photo shots taken using special lences on special satellites , these are parts of our universe because these are reall galaxies! They are under this sattelite lence create this abstract scean, and we are visually as visible objects togeather create each one of them!

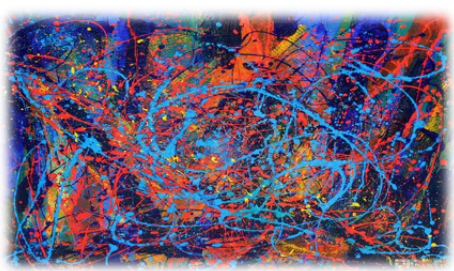
According to this theory Any surface can make an abstract scean as long as we know how to invest its elements in the best way, like in these captions from photography world. Can you tell from which surfaces were these abstract captions taken?

[4] *The beauty of the image.*

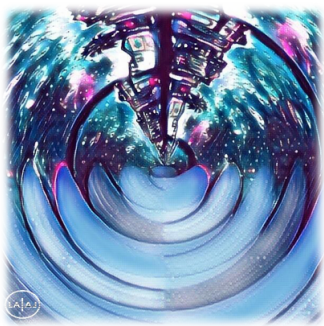
Photoshoots by Abdulrahman Adi and Lama Aldayoub

When it comes to imagination how abstract art does look like?

Gaston Bachelard says:
„Imagination gives a meaning to the reality details which look not functional for the first look."
And we say, any picture can be copied, abstract pictures almost impossible to be copied! [4]
These great exemples can prove that.



And according to Gestalt Theory beside to the big and small theory and Bachelard image concepet, we can apply many different abstract art works using digital drawing that has a great meaning as Bachelard said and the visual hints that Gestalt talked about. Here are some of the ones that I did by myself:



After art, how can science apply The Big and Small Theory?

We agreed that we can not imagine a colour that does not exist in the nature! And even if we could, we need to mix natural coloures to reach it, but did we mention that there are many creatures in the nature that can see much more better that us? And that they can see millions of colours that we actually can not see! Few humans have this abbility but this is a very rare case.

Does that means that we there are shapes that we do not know too?

Actually it is, and these facts all besides the big and small theory can be based on to creat new lences, new cameras, new filters, new microscopes, and even developing Satellites to make a better visaul world, and to fullify our visual curiosity to see the world in different eyes.

In the end

It doesn't stop on here, abstract art can only be Metaphysical if you chose the correct topic for your art work! Like drawing and painting the hand palm lines that they use to read your future or the middle eatern style coffee lines! Or any other topic in your mind! Whatever it is your field. But rememmber, there is no need to tell stories about how deep and metaphysical is your abstract artwork is in order to give it a certain importance, your artwork is important because you are important, tell the truth to the audiens, use a simple language, and let them explore your artwork deeply, seeing themselves through and beyond it, maybe they can tell you something you can not see, let the" little Gestalt" inside of them wake up! art is to reach anyone, and real art is the simple to the audiens the complecated to the artist!

And abstract art especially teachs us to be honest and simple, to go deeper, to do not judge and to be ourselves!

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SKOBRÁK ÁDÁM *

Kézmozgásvezérelt mobilrobot mozgatása virtuális térben

Összefoglalás: Az ember–számítógép-interakcióban egyre több lehetőség nyílik a hagyományos, megszokott eszközök alkalmazásán túlmenően. Az ember–számítógép-kapcsolat beviteli eszközei folyamatosan fejlődnek, egyre több lehetőséget adva a számítógép, és azon keresztül egyéb más berendezés emberi irányítására vonatkozólag. A fejlődés eredményeként olyan kutatások valósíthatók meg, amelyek segítségével az emberi irányítás új lehetőségei vizsgálhatók, sőt egyes egyéni jellemzők is elemezhetők. A kutatás során kézmozgás-érzékelés felhasználásával mobilrobot sebességvezérlése valósul meg virtuális térben, mely jó tesztkörnyezetet ad az ember általi irányítás vizsgálatához. Ezen tesztkörnyezet segítségével az emberi irányítás egyes tényezői a hagyományosan alkalmazott irányítási módszerekkel összevetésre kerülnek és az így levonható következtetések feltehetően új tudományos eredményekkel szolgálnak.
Kulcsszavak: Informatika, gyakorlati oktatás, beágyazott rendszerek.

Abstract: In human-computer interaction, there is more and more opportunities beyond the use of traditional, customary tools. The human-computer connection inbound devices are constantly evolving, providing more and more opportunities for the human control of the computer and other devices via it. As a result of development, research can be carried out through which new opportunities for human governance can be investigated and even individual characteristics can be analyzed. During the research, using mobile motion detection, mobile robot speed control takes place in virtual space, which provides a good test environment for human control. Using this test environment, individual factors of human governance are compared with the traditional management methods and the conclusions that can be deduced are probably new scientific results.
Keywords: Informatics, practical training, embedded systems.

* *Dunaújvárosi Egyetem, Műszaki Intézet*
Email: a.skobrak@gmail.com

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[7] Katona, J.–Kővári, A. (2016): *A Brain–Computer Interface Project Applied in Computer Engineering.* IEEE Transactions on Education. 59(4). Pp. 319–326.

Bevezetés

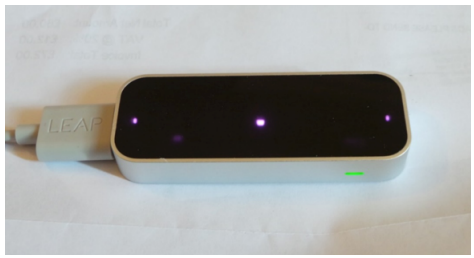
A cikkben egy komplex kézmozgásvezérlést megvalósító informatikai feladat kerül bemutatásra. A mérnöki tudás egyre összetettebb, komplexebb problémák megoldását kívánja meg, melyben egy ilyen feladat megoldása során igen sokféle informatikai területhez köthető gyakorlati tapasztalat megszerzésében segítheti a hallgatókat. [1] Az informatikai oktatásban az elméleti ismeretek elsajátítása mellett, hasonló vagy inkább még kiemeltebb jelentőséggel bírnak a gyakorlati ismeretek átadását segítő labor gyakorlatok. [2] A cikkben bemutatott kézmozgás vezérlés az ember–számítógép-interfészek témaköréhez kapcsolódik, melyek manapság igen sokféle kialakításúak lehetnek az agy–számítógép-interfészektől [3, 4, 5, 6, 7] akár a szemmozgáskövető rendszerekig. [8] A teljes kézmozgásvezérelt mobil robot mozgatása számos informatikai területtel összefüggő tudás alkalmazását feltételezi, a szoftver vonatkozásában mind a hardverközeli alkalmazás fejlesztéshez igen jó feladatnak bizonyulhat. A cikkben néhány olyan eszköz és annak alkalmazása kerül bemutatásra, melyek fontos szerepet játszhatnak az iskolai keretek között projektjelleggel kidolgozható feladatoknak egy kézmozgásvezérelt robot mozgatása kapcsán.

Feladatspecifikáció

Leap Motion

A Leap Motion szenzor egy olyan eszköz, amelyen három infravörös LED és két infravörös kamera található, amivel képes lekövetni a kézmozgást, ezzel nagyon sok felhasználási módot biztosít az alkalmazónak. Az eszköz egy 3 dimenziós koordináta rendszerben dolgozik (x, y, z).

1. ábra. Leap Motion.



A Leap Motion szoftver egy belső modelljét használja az emberi kéznek, hogy pontos lekövetést tudjon biztosítani akkor is, hogyha a kéz adott részei épp nem láthatóak. A kéz modellje biztosítja a folytonos pozícióit az öt ujjnak, bár a lekövetés akkor a legoptimálisabb, ha a kéz körvonala és mind az öt ujj tisztán látható.

1. táblázat. Leap Motion mértékegységek.

Megnevezés	Mértékegység
Távolság	millimeter
Idő	microseconds
Gyorsaság	millimeter/second
Szög	radian

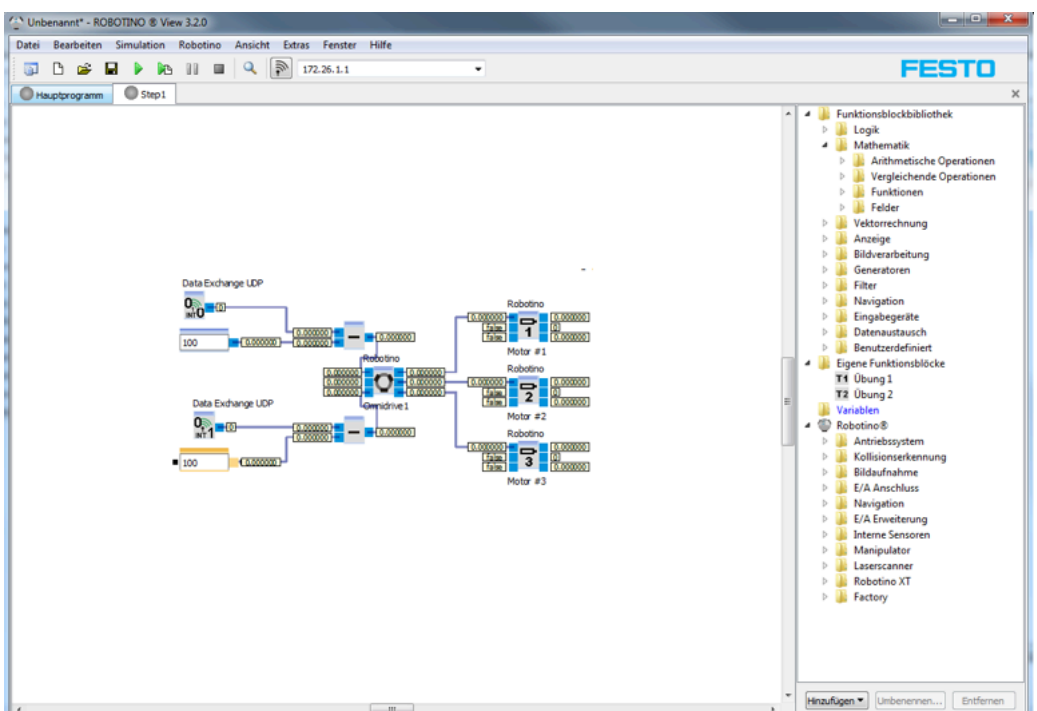
[8] Ujbányi, T.–Katona, J.–Sziladi, G., –Kővári, A. (2016): *Eye-tracking analysis of computer networks exam question besides different skilled groups.* 2016 7th IEEE International Conference on Cognitive Infocommunications (CogInfoCom). Pp. 277–281.

Az eszköz képes külön kezelni kézfejet, ujjakat, különböző tárgyakat. Meg tud különböztetni különböző gesztusokat így akár gesztusvezérelt alkalmazásokra is alkalmas lehet; az egyhelyben lévő tárgyakat is tudja érzékelni, valamint a forgómozgást végző tárgyakat és az egyéb mozgást végző tárgyakat is meg tudja különböztetni.

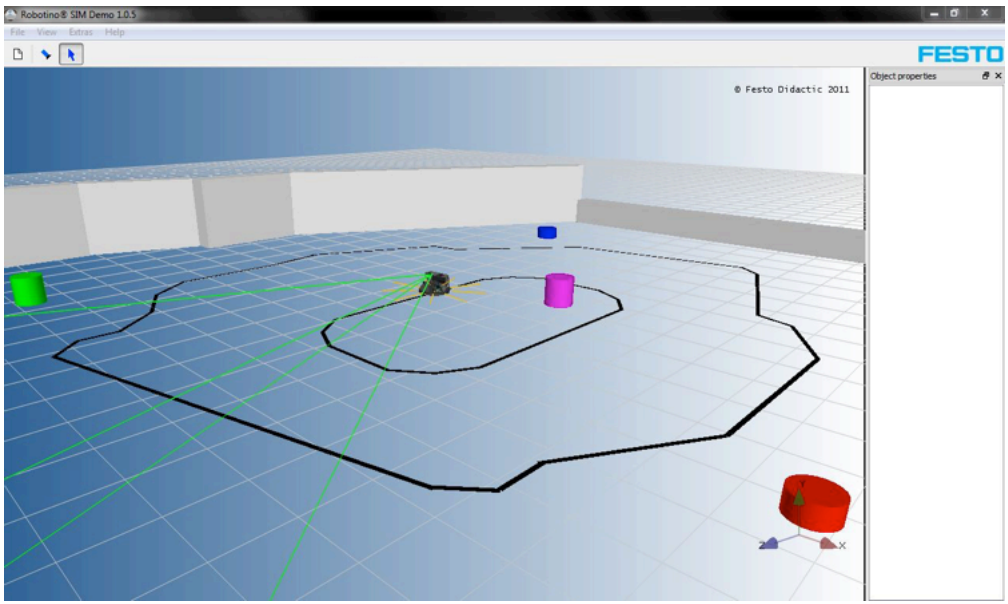
RobotinoView&Sim

A RobotinoView egy interaktív, grafikus programozási környezet. A RobotinoSim pedig egy szimulációs környezet, ahol a mobil robot mozog. A RobotinoView-ban elkészített programot futtatva mozog a mobil robot. Ebben a fejlesztő környezetben nem kódokat kell írni, hanem grafikus modulokból kell összeállítani a programunkat.

3. ábra. RobotinoView.



4. ábra. RobotinoSim.



Tervezés

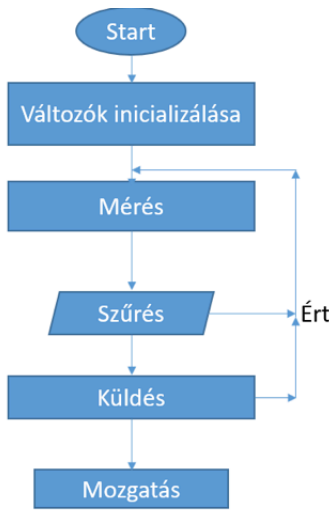
Egy program fejlesztésénél az egyik legfontosabb fázis a tervezés. Ekkor a részletes specifikációt követően kialakul egy még pontosabb összkép a születő szoftverről.

Elsődleges szempont az, hogy könnyen használható, egyszerűen áttekinthető legyen. Ezt követően át kellett gondolnom, hogy milyen módon szeretném kinyerni majd értelmezni az adatokat és ezeket továbbítani egy másik program számára.

Kisebb kutatást végezve az interneten, rátaláltam a Leap Motion Software Development Kit-re (SDK). Az SDK-t alkalmazva a Leap Motion specifikus C# parancsok pontos magyarázatát találtam meg, így nagyban megkönnyítette a munkámat. Az adattovábbításra találtam több lehetőséget is, de a UserDatagramProtocol (UDP) választottam.

A RobotinoView-ba megkapott adatot valahogy értelmezhető kellett tennem a mobilrobot számára, ehhez is találtam megoldást méghozzá az Omnidrive-ot. Ennek segítségével a beérkező adatokat a mobilrobot motorjaihoz értelmező értékké alakította.

5. ábra. Folyamatábra.

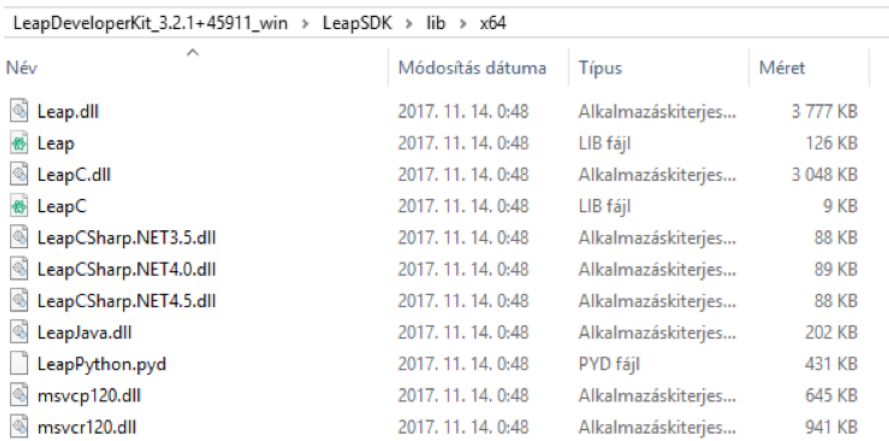


Szoftver megvalósítása

A program elkészítéséhez a Visual Studio 2017-es fejlesztőkörnyezetet alkalmaztunk, mivel ebben a fejlesztői környezetben volt tapasztalatom. A programban alkalmaztam az Objektum Orientált Programozás (OOP) paradigmáit. Így tökéletesen elkülönül az adatértelmező és -küldő programrész. A fejlesztői környezetet már évek óta tanulom és használom, valamint olyan lehetőséget biztosított számomra melyek nélkülözhetetlenek voltak a program elkészítése során.

Windows alatt a Leap Motion C# API úgy kezelendő, mint egy .Net-es gyűjtemény, valamint 2 Dynamic Link Library (dll) csomag Leap.dll valamint LeapCSharp.NET4.5.dll. Külön dll-ek vannak a Windows 32- és 64 bites változataihoz is.

6. ábra. Leap Motion SDK.



Amikor az alkalmazás meghív egy függvényt a Leap Motion C# API-ban a C# kód meghívja a vele egyező függvényt amint aLeapCSharp.NET4.5.dll-ben van definiálva. Mind a két gyűjteményt kötelező importálni a programba, mind fejlesztés alatt, mind pedig a kész program használatakor. A Leap Motion gyűjtemények úgy készültek, hogy automatikusan betöltődjenek az azonos könyvtárból, ahonnan a program futtatható.

A program úgy lett megvalósítva, hogy figyelmeztesse a felhasználót, ha a kezével a Leap Motion infravörös kamera látótávolságán kívül van. Azért fontos ez , mert akkor nem tud értelmezhető adatot küldeni a RobotinoView számára. Az értelmezhető adatot UDP-csatlakozással küldi tovább, ha ez megtörtént be is zárja a kapcsolatot. Az RobotinoView számára az adatküldés vezeték nélküli kapcsolat alkalmazásával is megvalósulhat, akár egy komplex hálózat részeként. [9]

A RobotinoView számára csak byte-ba küldhető adat, vagyis 0-tól 255-ig. A programba bele kellett építeni egy szűrőt, amivel a mért adatokat behatároljuk a byte méretébe.

[9] Farkas, I.–Dukan, P.–Katona, J.–Kővári, A. (2014): Wireless sensor network protocol developed for microcontroller based Wireless Sensor units, and data processing with visualization by LabVIEW. 2014 IEEE 12th International Symposium on Applied Machine Intelligence and Informatics (SAMI). Pp. 95–98.

Tesztelés

A programot éles használat közben teszteltem. A tesztek során feltárt egyes programhibákat beazonosítottam, javítottam. Használat során tapasztaltam, hogy az UDP-kapcsolat nem jött létre, de ezt a későbbiekben sikerrel orvosoltam. A mobilrobot irányítása eleinte darabosnak volt mondható, de ezt később C# program finomításával orvosolni tudtam.

Összegzés

Az eredmények egyrészt az emberi (kézi) irányítás alternatív alkalmazási lehetőségeinek területén adhat új tudományos eredményeket, másrészt továbblépésként a kézmozgás-érzékelés megvalósítása egyéb kéz segítségével végzett folyamat, jelzések végrehajtásának elemzésére is felhasználhatóak, mely a pontosabb, precízebb feladatvégrehajtás, vagy egyéb jelzések minél jobb elsajátítása terén nyújthatnak nagy segítséget, elemzéshez információkat.

HABINYÁK ERZSÉBET *

Alternatív és innovatív oktatási módszerek és formák a romániai magyar óvodai oktatásban

Összefoglalás: Az óvodai oktatás háttérbe szorul az iskolai oktatással szemben, mégis nagyon fontos szerepe van a kisgyermek fejlődésében, készségeinek és képességeinek kialakulásában. Megfelelő motiváció szükséges ahhoz, hogy a Romániában élő magyar anyanyelvű szülők magyar óvodába, csoportba irassák be gyermekeiket. Ennek érdekében az óvodapedagógusok olyan alternatív és innovatív módszereket kell bevezessenek és használjanak, melyek által szellemileg fejlődnek a gyermekek, személyiségük jó irányba tud kibontakozni, a megfelelő ingerkörnyezetet tudják biztosítani és lehetőségük van lépést tartani a fejlődő technikával. Ezekben az intézményekben a kisgyermek anyanyelvén beszél, játszik, tanul, de emellett helyet kap a román nyelv megismerése és elsajátítása is.
Kulcsszavak: Oktatás, óvoda, magyar csoport, innováció, óvodapedagógus.

Abstract: The aim of this article to show how is the management of education in Hungarian, and which are the alternative and innovative methods used in educating children in kindergartens at the Hungarian section of Romania. It is the phenomenon of attracting Hungarian children from Romanian–Hungarian mixed areas with kindergartens, in strong schools, where they receive modern education and the hope of being able to develop in a Hungarian environment, thus avoiding the traps of assimilation. Hungarian society in Romania seems a little preoccupied with the development of the education system than the majority Romanians. This phenomenon can be explained by the eternal fear of the Hungarian minority by the new methods of open assimilation of the state. Mill demography does not forgive any minority or the majority. The mill has its heavy laws, and they are heavier and questions from teachers about the future of Hungarian education in bilingual areas.
Keywords: Education, preschoolers, Hungarian section, kindergarten.

* *Óvodapedagógus, Csillagocska Református Zeneóvoda, Nagyvárad*
Email: zsikk10@yahoo.com

Introduction

National identity is closely related to the mother tongue. If the language of a nation is thinner, the nation itself could feel this phenomenon on its skin. If you do not learn your language, your vocabulary narrows and fills up with phrases in other languages, thus forming those pseudo-texts, which are in fact impoverished languages, kept on the surface only by using the amalgam of foreign words. The associations of Hungarian educators and their associations, who in one way or another want to do something to maintain the high level of education in Hungarian, function as true institutions. The Hungarian society has groups of specialists for any segment of Hungarian education. Hungary invests 1.5 billion forints (about 21 million lei) in modernizing Hungarian pre-school education in Transylvania. Of this amount 900 million forints will be allocated for playgrounds, 300 for endowment, 227 for specialization courses. [1]

The equality of school and social opportunities of representatives of ethnic minorities, as well as the preservation of their cultural and linguistic identity, constitutes legitimate themes of debate on the issue of ethnic minority management. In the field of educational policies, these themes provide the organizational issues for the formation of younger generations in these communities and at the same time suggest solutions to them. The most acute debates and confrontations have, in Romania in the last decades, attributed the educational rights of the ethnic Hungarians. The assessment of the impact that educational solutions for Hungarian minority education have on their school and social outcomes should start from clarifying the relative diversity of learning situations in which these people can find themselves. A first level, individually, is the language of teaching and the effect of learning in the mother tongue, compared to learning in the majority language. [2]

At the individual level, the easy to enforce solution is access to education in one's own language. Even before 1990 the majority of Hungarian pupils had the possibility to train in their mother tongue, with Hungarian-language teaching classes in most locations where representatives of the Hungarian ethnic group represented a significant part of the population. The cultural

[1] Szabó, C. (2018): Școlile maghiare mici și moara demografică, În: *Corbii albi, Portal de contact român-maghiar*. http://corbiialbi.ro. TEHNE- Centrul pentru Inovare în Educație. Impactul formativ al utilizării AEL în educație. București, 2004. Online: http://www.tehne.ro/resurse/TEHNE_Impact_formativ_AEL_2005.pdf

[2] Hatos, A. (2011): *School performance and language of Hungarian ethnic pupils, Socio-Lingvistică – O abordare comparativă*. http://www.revistadesociologie.ro.

handicap of primary socialized children in a culture other than the majority justifies such an organization of education, the argument being therefore one of social justice: the educational and finally the social chances of the Hungarian children, for example, who learn in Romanian are significantly lower than ethnic Romanians because of the linguistic barriers, first of all.

Role and importance of preschooler education

Early education, as the first stage of formal education training, ensures that the child enters the compulsory education system (around the age of 6) by building up the learning ability. The child's education starts from birth. Early education in Romania, as in the whole world, includes the education of the child from the time of birth to the entrance to school. Kindergarten, as a formal education service, ensures the environment that guarantees the safety and health of children and which, considering the psychological characteristics of child development, involves both the family and the community in the learning process. The Romanian educational system has made remarkable progress despite the difficult economic conditions and the social changes recorded since 1989. At the end of 1990, the country has experienced an economic stagnation, but after 1998 as a result of gradual democratization and infusion of European and Bank funds Worldwide, reform in education has begun. Along with the provisions of the Education Law No. 84/1995 on the gradual generalization of the preparatory group for the school, the enrollment rate of children in kindergarten increased annually. [3]

The development of this document took into account the current trends in pedagogy, the evolution of the pre-school education system registered in the last years (openness towards the approach of the Project Method, integrated activities, group interactive methods, etc.), a number of positive / difficulties encountered in the group activity of educating teachers, as well as the current level of maturity of children in kindergartens and trends and developments in the field of modern information and technologies. At the same time, the role of pre-school education has been reconsidered in relation to the other stages of the education system. [4]

[3] Glava, A.–Glava, C. (2002): *Introducere în pedagogia preşcolară.* Cluj-Napoca: Dacia.

[4] O'Dwyer, T. (1995): Pre-school education in the European Union : current thinking and provision / European Commission. In: *Studies / Education, Training, Youth*, No. 6.

Early education (including preschool education) has a positive effect on the child's abilities and future school careers, particularly for children from very disadvantaged socio-economic backgrounds, in the sense that they progress intellectually, develop positive attitudes towards learning as well and the motivation to put a real effort into school in the future. On the other hand, it was found that early education has a positive effect on the intellectual and social abilities of children, regardless of their background, when day care institutions really promote quality, both in terms of physical environment and adult / child. Also, early education (including preschool education) has positive effects on the future social integration of adolescents and adults. Longitudinal studies have established that for children from disadvantaged socio-economic background there has been a decline in delinquent behavior as well as a higher rate of schooling. This effect on social integration can, of course, be explained by a successful educational integration with fewer years of repetition, lower abandon rates, and a greater desire to be integrated into society. The size of the group is also important. Some authors consider that 25 children are the maximum, and in classes with over 25 children should be two adults. That is why high staffing rates, accompanied by cooperation between adults responsible for children's education and quality education, have an impact on children's development. Regarding the influence of training and supervising staff on children's development, there are three interrelated areas of adult behavior that impact children's development [5]:

1. Organize the class by groups in different areas, allowing children to act individually or in small or larger groups. This form of organization has positive effects on social development (independence, cooperation, solving social conflicts) and language.
2. Introduction of different types of material, accessible and appropriate to children, with suggestions for structured activities around this material. This enables children to become involved in the game and, at the same time, to develop their social skills.
3. The quality of adult / child interactions, both in relation to social behavior management (stimulation of self-expression and self-expression, encouragement of independence, etc.) and from the point of view of language (speaking time management and encouraging children who do not speak too a lot).

The active involvement of families in education and the promotion of their participation are those projects aimed at involving parents from disadvantaged backgrounds in the education of their own children, numerous and varied. Currently, research is lacking solid arguments in support of parental involvement and the

[5] Apostol, V.–Rafailă, E.–Ţugui, L.–Jurebie, S. (1999): Modele orientative de lucru cu preşcolarii. *AllPedagogic*. Bucureşti.

definition of effective methods of action. It just seems like an instrumental type of intervention to equip parents with a set of specific activities to be done at home is more relevant to children with special needs than for children from disadvantaged backgrounds, especially when they have pre-school education good. Other forms of parental involvement seem to be beneficial to underprivileged children, including emotional support, the development of a satisfactory parent / child relationship, help with the use of locally available services (eg. social services, family counseling and nutrition). [6]

New technologies for preschool education

Modern educational technologies aim to facilitate the teaching process by helping teachers create contexts favorable to learning, skills training, building a set of attitudes to stimulate curiosity, the desire to know more, the spirit of self-competition, the pleasure of progressing and develops self-training possibilities, but also a fair reporting on the evaluation, absolutely necessary in our positioning, in everyone's knowledge. Education needs modern educational technologies learned by the teachers and applied intelligently and constructively in the conduct of the instructive-educational process. The assessment made with the help of modern technologies becomes a less expensive moment in terms of emotional consumption, and the performance of the useful transformation succeeds, changing the attitude of the preschoolers towards the evaluation process itself. [7]

In the activities performed with preschoolers, computer-assisted learning can be used as a method if three essential coordinates are met cumulatively: the teachers have the necessary training to use the computer, the kindergarten has the necessary material basis for the activities assisted by the computer, the time allocated to or in full compliance with the needs and age of preschoolers. In working with preschoolers, the use of information technology has a positive echo. In the preparatory work it is assumed that, along with the classical didactic means, the computer is a didactic tool that can be used in order to increase the efficiency of the activities. Computer use in teaching increases teacher's performance, encourages innovation / modernization of the teaching process, facilitates understanding of children's phenomena, promotes cooperative learning, develops teamwork skills, allows individualized, personalized learning. [8]

[6] Bocoș, M.–Avram, I.–Catalano, H.–Someșan, E. (2009): Pedagogia învățământului preșcolar. *Instrumente didactice.* Cluj-Napoca: Editura Presa universitară Clujeană.

[7] Trăistaru, L. D.–Dan, E. C. (2015): *Utilizarea tehnologiilor educaționale moderne*. Aplicații, Revista cadrelor didactice Nr. 13/2015.

[8] Oprea, C. L. (2007): Strategii didactice interactive. *Editura Didactică și Pedagogică.* București.

ICT can be used for the following types of activities: teaching and learning that can be done using electronic, interactive, multimedia lessons (a documentary or teaching film, a webpage, a computer presentation), educational software, activities requiring children to be creative, to explore and to innovate, using the Internet, enriching their knowledge with information from various domains. The games develop the reaction speed, the logical thinking, the competitive spirit. The child can learn colors, figures, letters, geometric shapes, composition and decomposition of natural numbers, ordering objects according to different criteria, etc. in a pleasant and accessible way. The computer, through educational software, can also train, help solve tasks and have fun. The educational ambience specific to learning situations makes doing so is replaced by the virtual learning environment. [9]

Designed and deployed properly, teaching-learning-computer-based assessment can become a method by which pre-school children discover and develop in a planned way, helping them learn through logical actions, avoiding the development of mechanical skills. The use of educational software can be a motivating method, which contributes to the efficiency and modernization of didactic approach, the support of didactic innovation, the accessibility of knowledge. [10]

In pre-school education, play is the main form of organizing the educational process, and the computer is for the child another way of learning to play, it is part of its socio-cultural space, which puts it in the position of quickly find solutions, adapt to a world in which information flows, influences language and non-verbal communication, and everything with fast-paced steps.

Preschools can consolidate their knowledge by solving the tasks they have received. The character asks the child to analyze the image on the screen, compare the shape and size of the cards by visual matching, and then place them in the bookshelves one at a time. The individual pictures are presented in turn and the child must appeal either to the overall picture presented to him when he is wrong or to his previous knowledge. The game takes place interactively, the computer advises the one who is playing, thinks well, and encourages him to try again if he is wrong. Correct answers are rewarded with shouts of joy, applause and praise, because he placed the books correctly in the shelves. The program has several game variants: it repairs the toy (the missing and then colored pieces have to be assembled according to the wish of the child), math with characters from known stories, riddles, labyrinth, constructions (cricket box), and guess clues (The character is hidden and must be found by giving click on each digit. After solving all the tasks, the child is praised,

[9] Ordean, G. (2001): *Primii pași în lumea calculatoarelor.* Deva: Editura Sigma Plus.

[10] TEHNE-Centrul pentru Inovare în Educație. *Impactul formativ al utilizării AEL în educație.* București, 2004. Online: http://www.tehne.ro/resurse/TEHNE_Impact_formativ_AEL_2005.pdf

applauded and receives a medal reward). In other interactive games, he is rewarded with a diploma in which he writes his name or the work he has assembled a toy, a means of transport, coloring and has the option to print them. One of the important objectives of pre-school education is the preparation for school, with the many aspects that it has: motivational, intellectual, affective, physical, and complementary, individual activities, where the computer is used as a means of education integrated into these. Using the keys, children get familiar with the letters, start writing simple words, name and surname, learn more easily the numbers and solve simple problems of gathering and lowering with 1–2 units, in a very pleasant way. [11]

Some representations can only be reproduced through the computer, which offers methods and techniques for graphics, animation, and sound. For example, the evolution of physical, chemical, biological phenomena, etc., which is dynamic, can only be represented or studied, using the computer. Labyrinth games help the child to use the left-right, up-and-down movement keys to develop reaction speeds, eye-motor coordination, but also the spirit of competition, the ability to act individually. We noticed an improvement in the ability to concentrate attention, increase the stability in action, even in some children who, in other activities, have a low concentration of attention. In traditional education, the teacher has many possibilities to check and stimulate learning. The purpose of a learning program is to formulate tasks, provide information approach schemes, feedback, and motivate the child to continue training. Audio-visual materials provide valuable resources for the learning system. Computer-assisted training is useful if the child is active and motivated, learning to be involved and challenged to think about what is presented to him. The quality of interaction with the child is a primary feature of an educational software; it depends on the extent to which learning takes place. [12]

Modern pedagogy puts the child at the forefront with his needs and needs for development. Children want to deal with themselves and want at the same time as people they trust to guide and protect them. The educator proves competence but also love for children when they offer them the opportunity to have an initiative.

Conclusions

In conclusion, it should be mentioned that the effects of early education on the subsequent education of the child are related to educational influences infused along

[11] Cioflica, S. M.–Iliescu, B. (2003): *„Prietenul meu, calculatorul”.* (Ghid de utilizare pentru preșcolari), Petroșani: Ed. Tehno-Art.

[12] Manolescu, M. (2004): *„Curriculum pentru învățământul primar și preșcolar. Teorie și practică”.* București: Ed. Credis.

the way. At an early age (up to 3 years), the types of care provided to children influence their development. Later (preschool, primary, gymnasium, and lyceum), the results depend on the experiences of the learning process. Therefore, it is very important to define and promote quality in education at these levels. On the other hand, research in the field shows that the greatest benefit of early education appears in the non-cognitive plan. Many positive and meaningful relationships have been identified between kindergarten attendance and pregnancy-centered behaviors, socio-emotional development, motivation, and positive attitudes towards learning.

Computer use in pre-school education allows the transmission and acquisition of new knowledge in an attractive way for children. The education process is more effective. Children learn to play, they are in a position to quickly find solutions and make decisions to solve problems. The computer is a means of training that keeps the active child's attention throughout the learning process.

Imagination, at pre-school age, enters a new phase of development, gets new aspects. Skills training described in the curriculum is not only possible through the use of classical teaching-learning-evaluation strategies. Individually differentiated, age-based training with educational software can be a successful alternative.

Using computer in kindergarten is a way to increase the quality of teaching and learning. Computer operation represents a new working strategy of the educator with children, presents important formative and informative valences, is a new way of training. Through the computer, children are provided with justifications and illustrations of abstract processes and concepts, phenomena unnoticed or hardly observable. Alongside classical didactic means, the computer is a teaching tool that can be used to make all activities in the kindergarten more efficient. The interest of children is maintained throughout the activities, using this didactic means.

Computer-aided learning is an effective training path. The cognitive and speech experiences that introduce children to the world of multimedia programs must be consistent with the educational environment they come from. Through these activities, we offer children equal opportunities for education, regardless of the environment in which they grow and develop. By using the computer, the teaching-learning-evaluation process acquires new dimensions and features, allows the transmission of new knowledge and suggests their meanings. The teaching-learning strategies used can support and stimulate active learning processes. Knowledge is a way that opens as we move forward. The learning process becomes more exciting and enjoyable through the computer. Vividly colored images, accompanied by suggestive texts, allow the development of small children's vocabulary and vocabulary. The bag of general knowledge grows, starting from simple notions such as colors and reaching to the knowledge of poems, songs as well as proverbs and sayings. Elementary notions, such as domestic and wild animals, seasons, etc., have begun to grasp at an early age, thus enabling them to learn more easily.

Galéria

Duma Bálint fotói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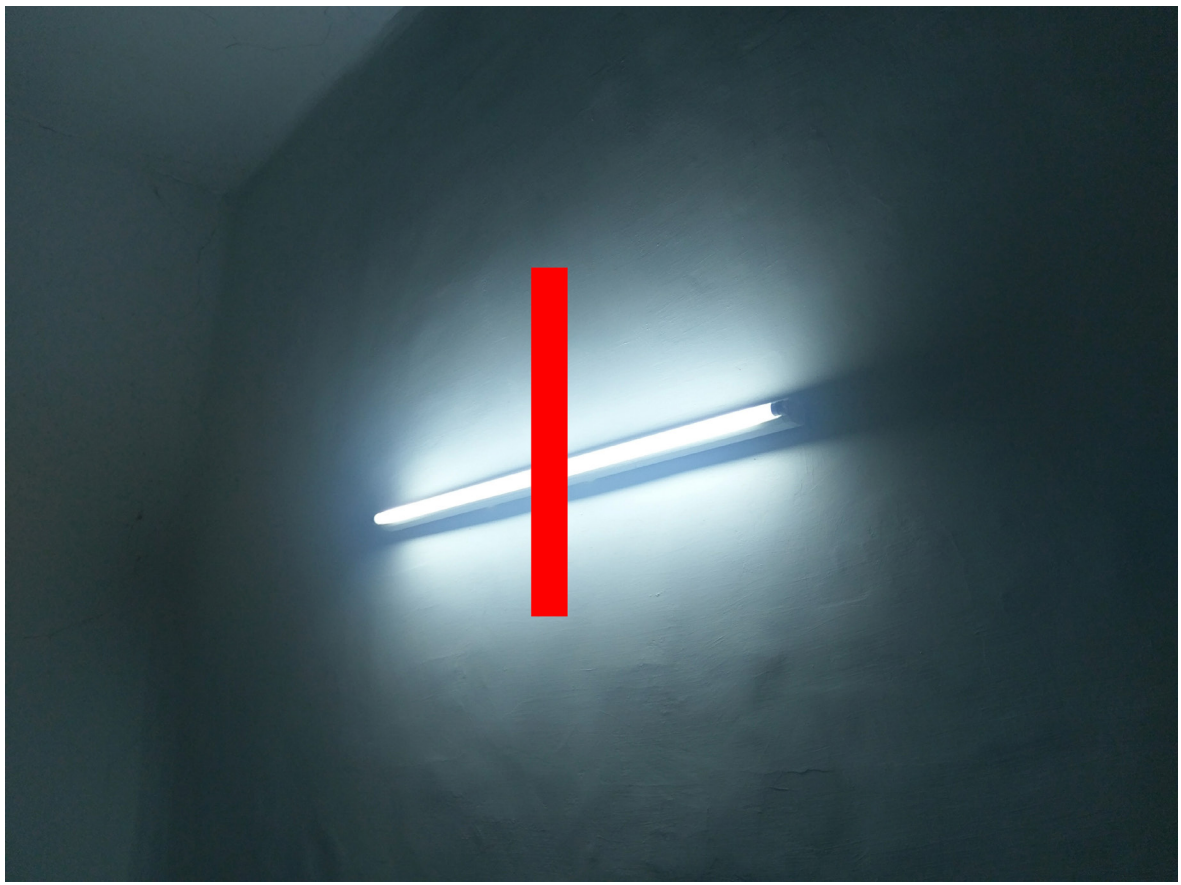

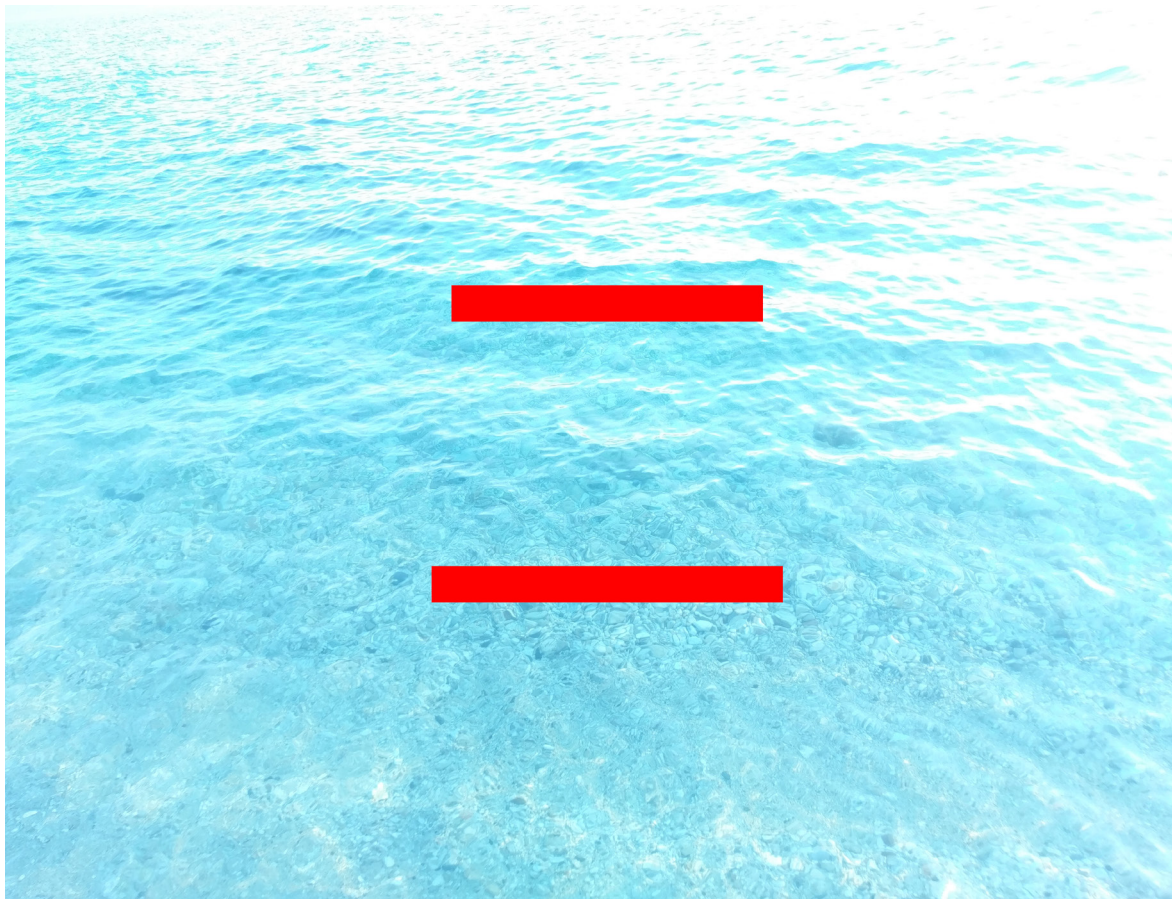

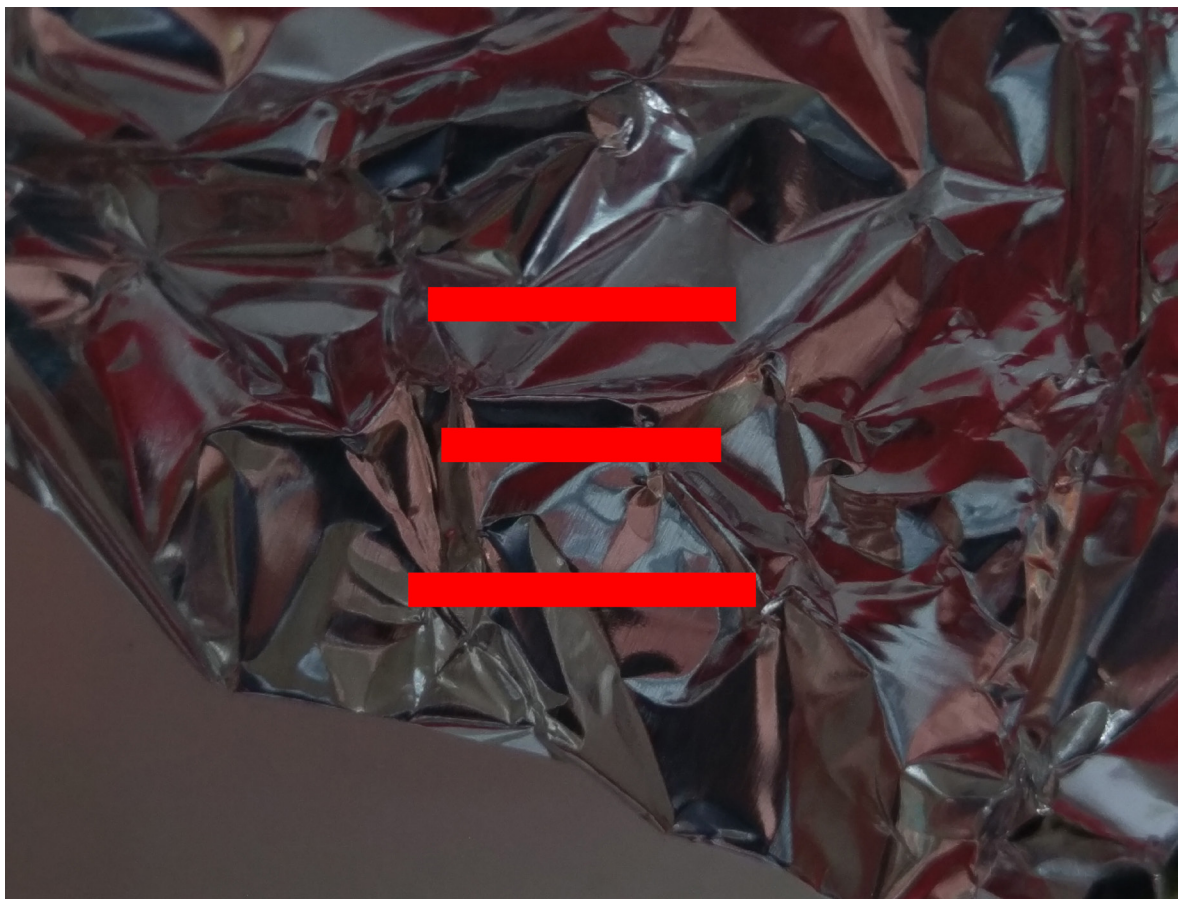

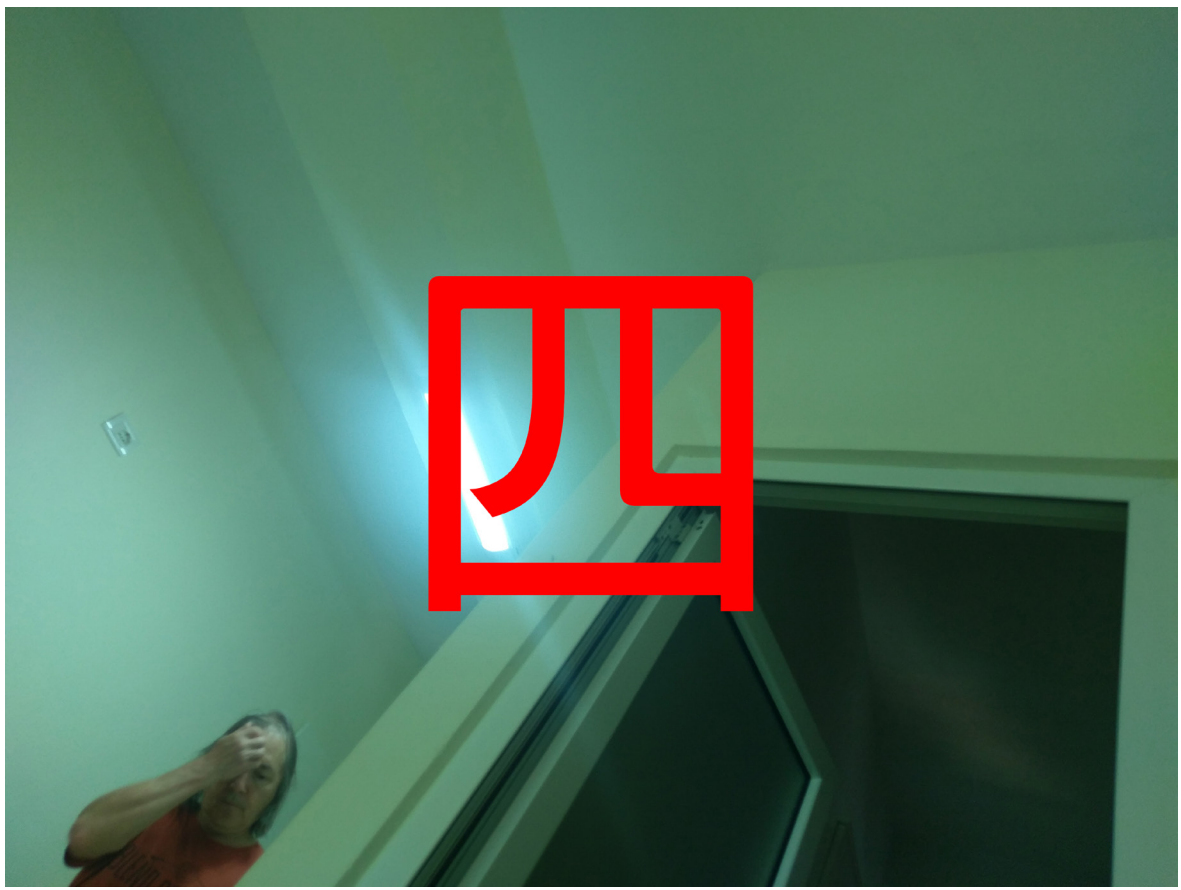

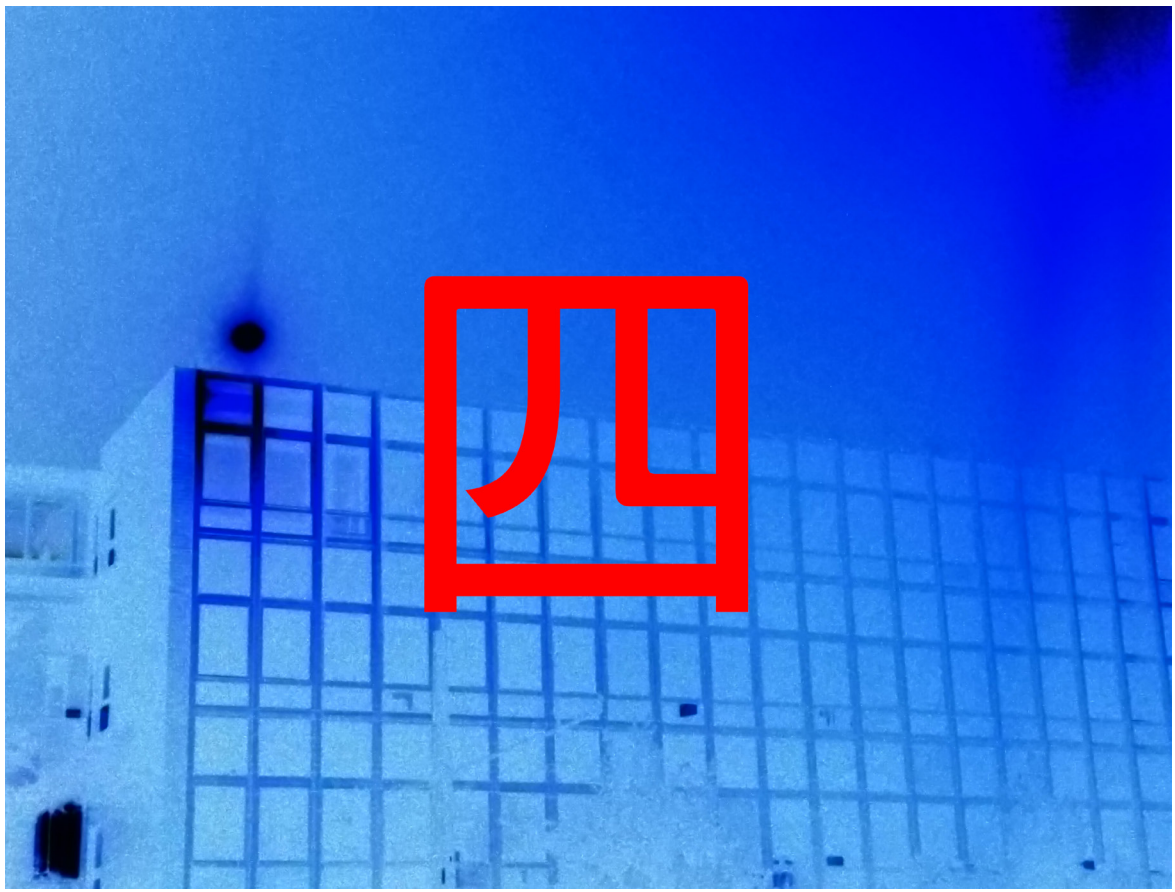

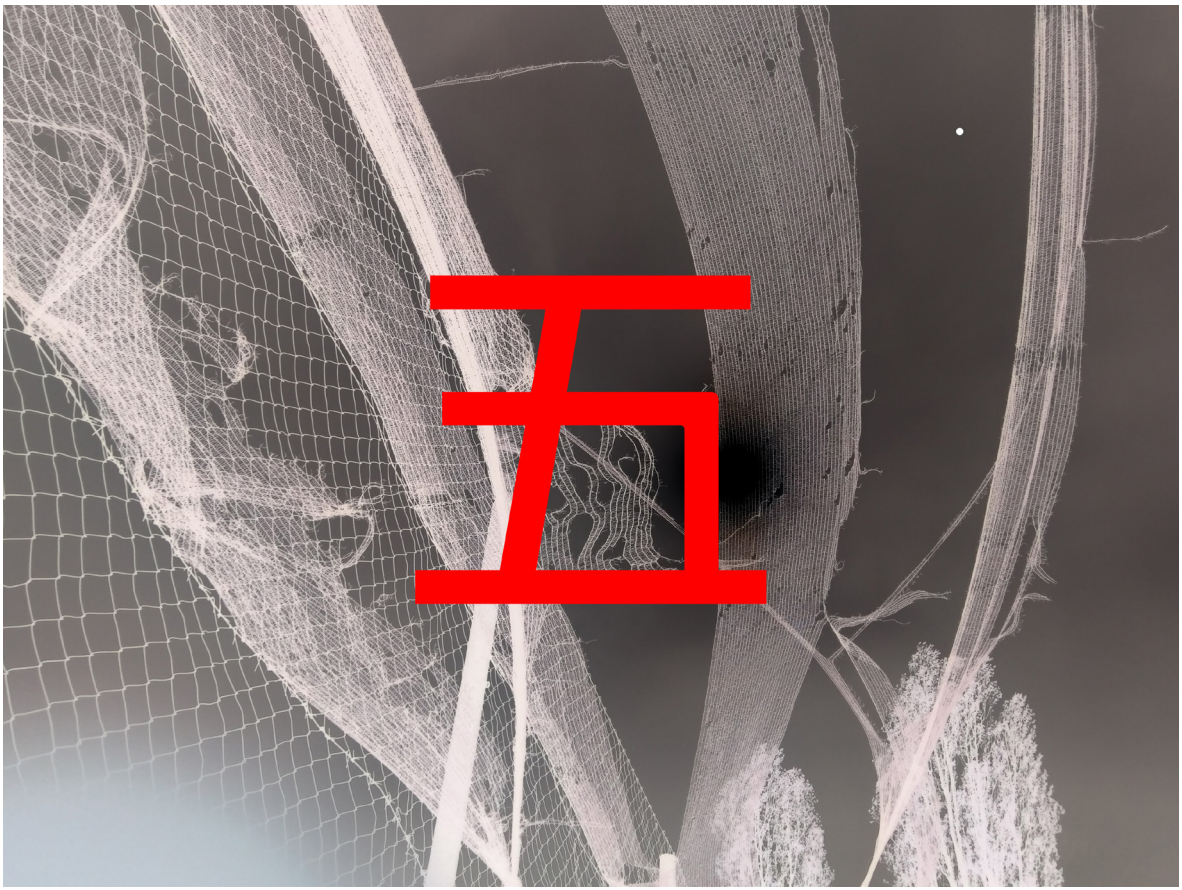

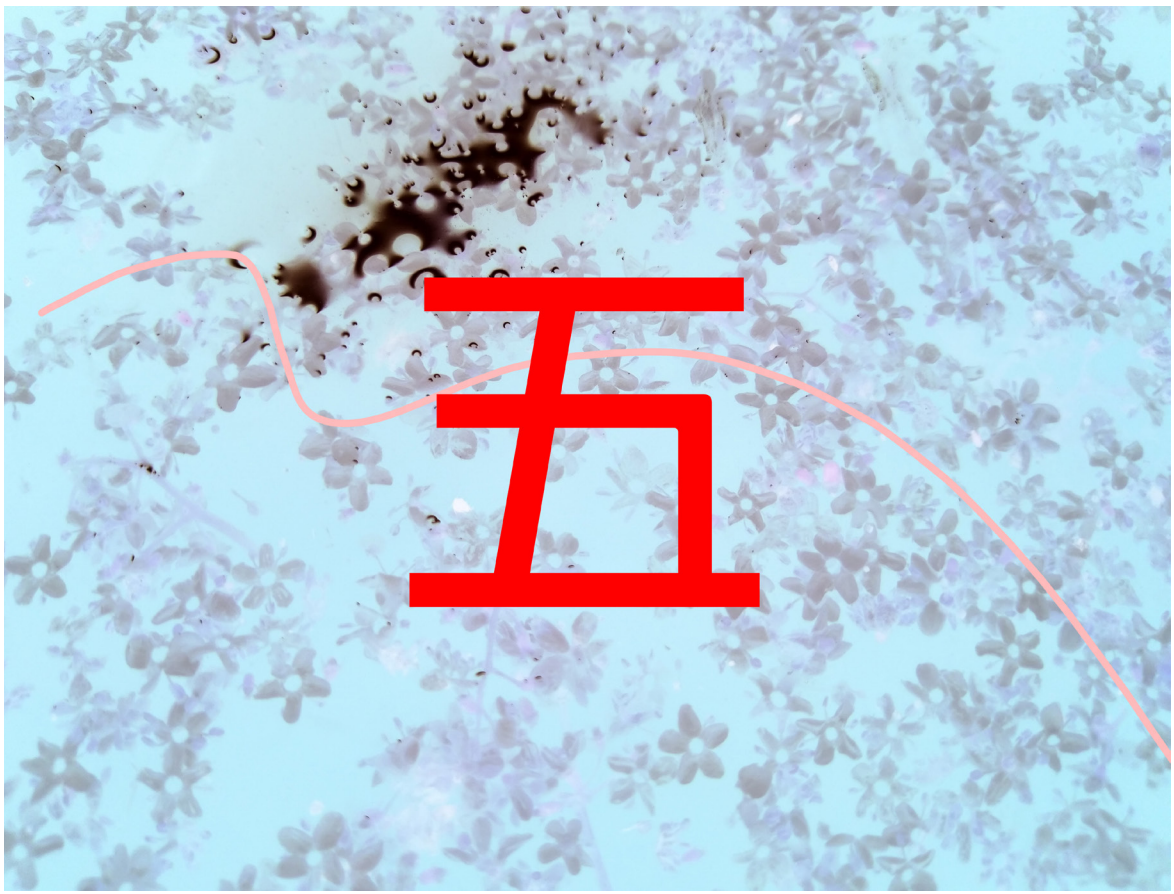

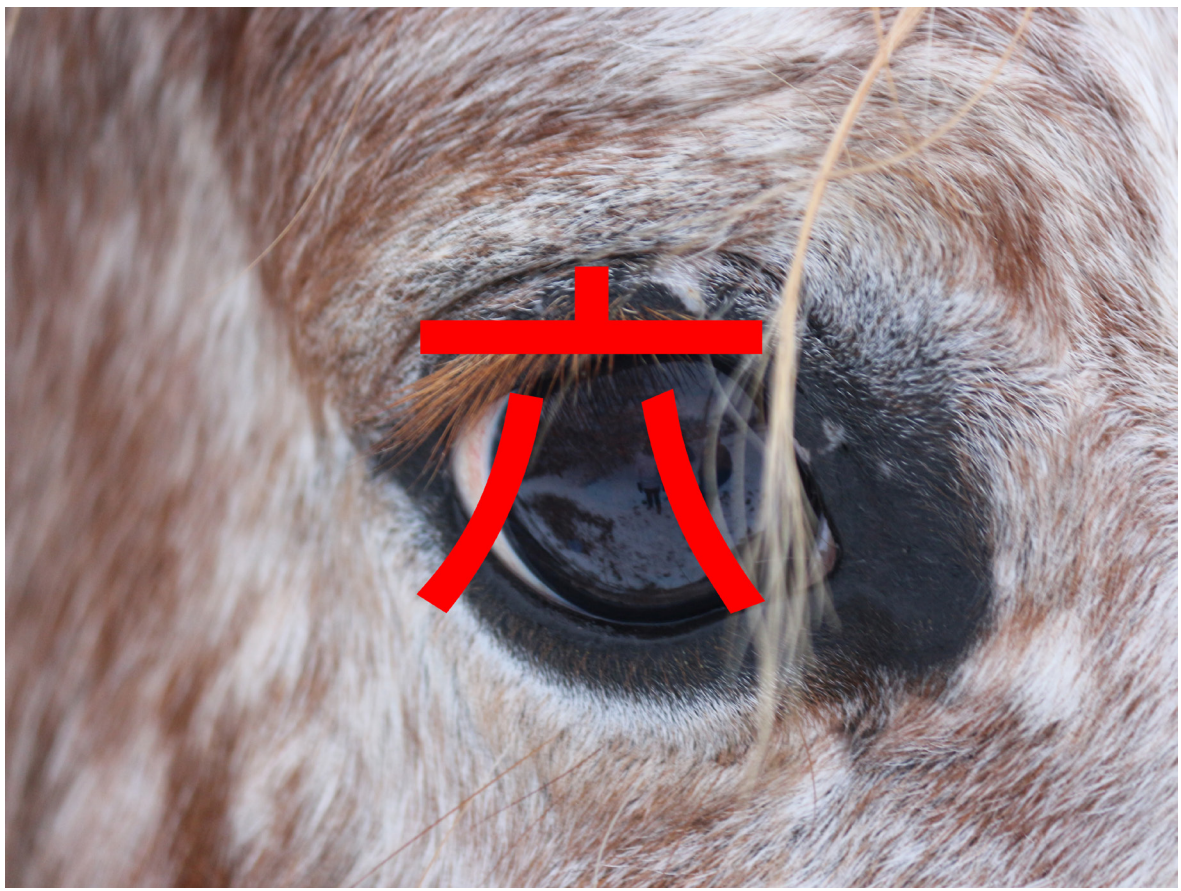


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