Co-funded by the
Erasmus+ Programme
of the European Union

Collection of materials for technical tasks solved within the project

FIT FOR CAREER

between 1 September 2019 and 30 June 2022 by

Vyšší odborná škola, Obchodní akademie a Střední odborné učiliště technické Chotěboř, the Czech Republic

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Професионална гимназия
"Иван Хаджиенов"
КАЗАНЛЪК

RoseBulPartners
SINCE 1925

Dear Sirs,

We really appreciate your intention to work with our school company "RoseBulPartners".
Our team consists of a group of enthusiasts who are responsible for producing the final article, making specification of all details and leading the correspondence on the project.

We are sending comprehensible drawings of our product which we hope you will like and make with pleasure.
All the drawings and corresponding specification are created by our students in English, so it is completely their own project, applying their own ideas. Of course our vocational teachers supervise the whole process, helping and consulting the students all the time.

We have already discussed the terms of delivery and we reassure you that everything will be sent on time – by 30 May.

We are really happy and satisfied with co-operating and doing business with you.

Best regards,

Deputy Manager of "RoseBulPartners" Company

Phone charger with bicycle dinamo

We will introduce super simple circuit design. It takes higher voltage alternating current AC from bike generator converts it to DC and steps it down to save voltage for charging your cell phone. This project uses old style bike generator which is considered to be alternator. It is very simple generator that turns rotational momentum in to AC electricity. The project consists of rectifier capacitor and voltage regulator. Rectifier converts back-and-forth wiggling and AC to DC. The capacitor helps to low down the voltage levels. The voltage regulator holds the incoming DC power down at 5V which is used by phones and other mobile devices.

Material list:

1. Adaptaplug socket cable.
2. Bicycle headlight generator, 12V, 6W.
3. Small bicycle saddle bag.
4. Grommets ¼.
5. Micro USB adapter plug.
6. Grip clip(Medium).
7. 1000mF 35V, 20% radial lead electrolytic capacitor.
8. Silicon bridge rectifier 400V, 1,5A.
9. Project enclosure.
10. +5V fixed-voltage regulator 7805.
11. Insulated ring tongue lugs.
12. Screws, bolt, washers, nit hookup wire.
13. Wire tool
14. Soldering iron and solder.
15. Screwdrivers.
16. Drill and bits.

S.A.F.E.

FERRARI ENTERPRISE

"ELECTRICAL STEAM SANITIZER"

Hand hygiene has always been one of the most effective actions to reduce the spread of pathogens. But with the coronavirus (COVID-19) outbreaks, it has become important more than ever.

Our SANITIZER is a silent disinfection device that does not require particular maintenance. It is suitable for public places such as hospitality, retail, manufacturing, office, hotel, hospital, sports, school, etc. In this way people can have the possibility to sanitize their hands from viruses and bacteria in a short time because, thanks to its ducting system, the air inside it is sanitized. This controlled emission sanitation system removes most of viruses and bacteria, does not produce ozone and has no contraindication.

It can be installed on the floor, on the wall or simply put on tables, desks or shelves.

It can be considered as a nebulizer / sanitizer since its working system allows water to be transformed into small drops thanks to pressure. It is mainly used to spray water, in our case with the addition of a sanitizer.

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It is made up of a tank (1) which contains water with the addition of a sanitizer.

It closes by screwing a cap and has a system that allows you to nebulize liquids.

It is powered by 220V and has a self-supporting structure adjustable with motion sensors.

Electrical characteristics Steam sanitizer:

Power 1000W

Power supply 220-240V - 50/60 Hz

Calculated pressure 3 Bar

Flow rate 26g / min

Thermostat

Safety cap

Motion sensor

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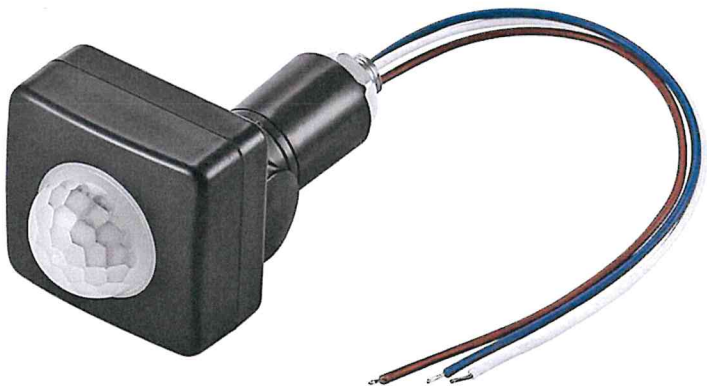
As the person passes by detecting the hands, the nozzle located on the structure is activated automatically for about 10 seconds by spraying the product detergent inserted in the tank. The twilight infrared switch therefore serves to switch on for a longer time or shorter, one or more lights according to the level of brightness of the environment and the motion detection.

In order for our device to be turned on by the infrared switch, it is necessary that the infrared PIR ray, detects a movement.



There are two adjustments on the body of the infrared switch. One for the intensity of ambient light below which the switch module allows the module PIR sensor to control the lamp. The other adjustment is the ignition time of the sanitizer.

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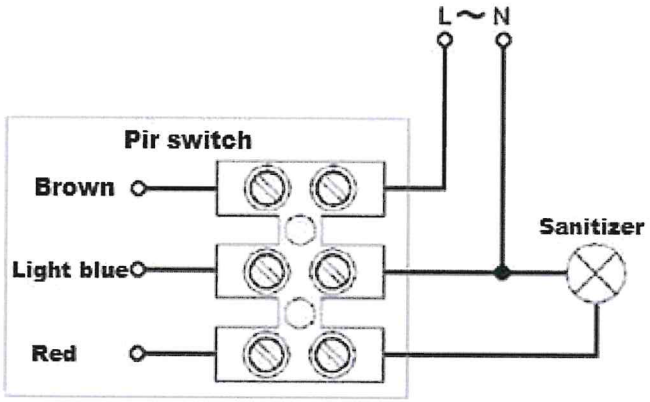
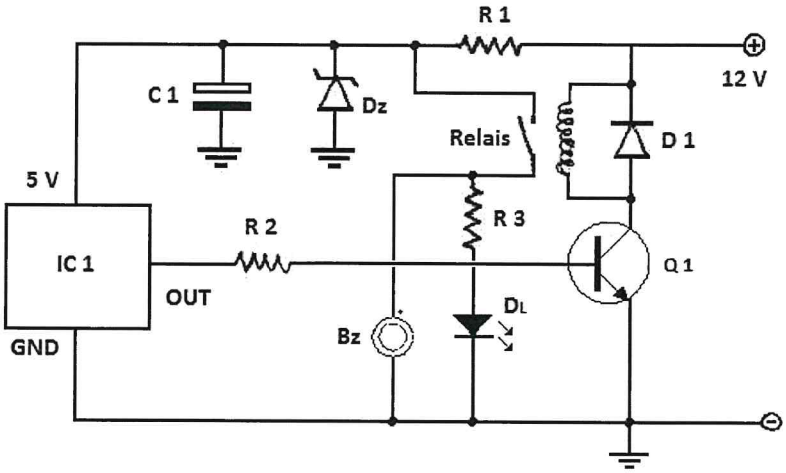
THREE ADJUSTABLE SWITCH

Build-in three switch that can adjust sensitivity
Delay time (5+/-2 second - 4+/-1 min)
Light illumination (2-2000lux)





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Bimetallic thermostat 150 ° C max., Closing on rising,

opening 35 ° C, closing 50 ° C

The snap-on bimetal disc operates a SPST contact that is electrically isolated from the mounting bracket.

On all types, reset function when the temperature drops nominally to minus 15 ° compared to the operating temperature.

- Phenolic body with stainless steel end cap.
- 1/4 in. Lug termination.
- The contacts are rated at 250 VAC. 10 A with a maximum resistance of 50 mΩ.
- Dielectric strength 2000 V a.c.
- N / C types open if the temperature rises.
- N / O types close if the temperature rises.

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Solenoid valve

Solenoid valve 2/2-way electric valve n.c. direct action r 1/8

(conical gas) hose connector outlet dn 2,0mm. and 2.7mm.

solenoid valve for different models of pressure boiler irons.

- Structural features

hydraulic body: brass uni en 12165: 98 cw 617n

incoming attack: r 1/8.

seal: epdm rubber

electrical connections: 6.3 x 0.8 fast-on terminal.

- Performance

max pressure: 3.5 bar steam

power: 230v 50 - 60hz

absorption: 13.5 goes in compliance with en 60 335-1

max ambient temperature: ta = 120 ° c class h

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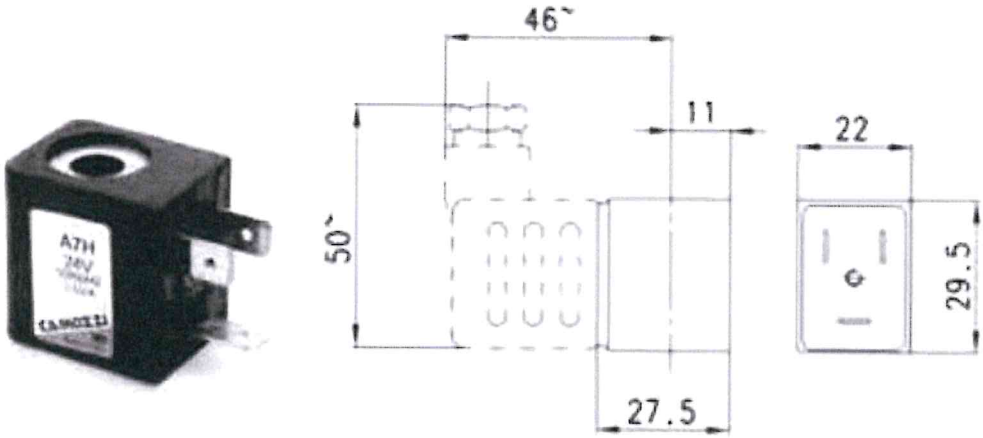

Above coil for solenoid valves; dimensions vary according to the model

220V cooling fan

AXIAL FAN 220V-230V with metal frame for cooling the structure Electric steam sanitizer.

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Base and Pedestal Features

The base of our Steam Electric Sanitizer is characterized by a galvanized sheet structure with a thickness of 60/10 and a diameter of 250 mm.

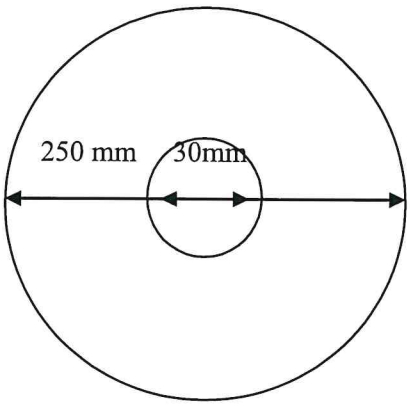
Sanitizer base part "A " part "B"

Material: Galvanized sheet

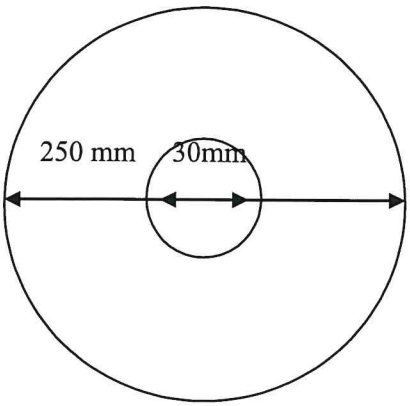
Spessore: 60/10

Diameter: 250 mm

Part "A"



Part "B"



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The pedestal is characterized by two solid aluminum structures with a diameter of 30mm.

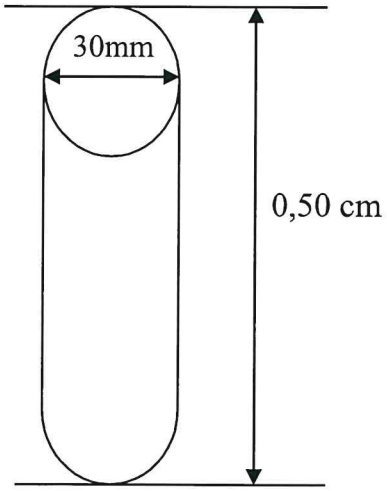
Sanitizer pedestal

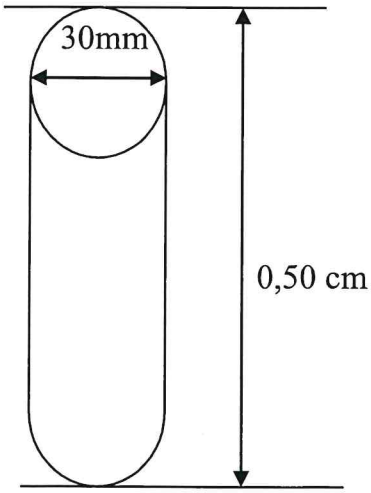
Material: aluminum

Thickness: solid

Diameter: 30mm

Height H: 2 by 50 cm
(with M / F thread)





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The outer casing of our Steam Electric Sanitizer is made with transparent plexiglass.

Externally it measures 25cm x 25cm.

Pace del Mela 11/04/2022

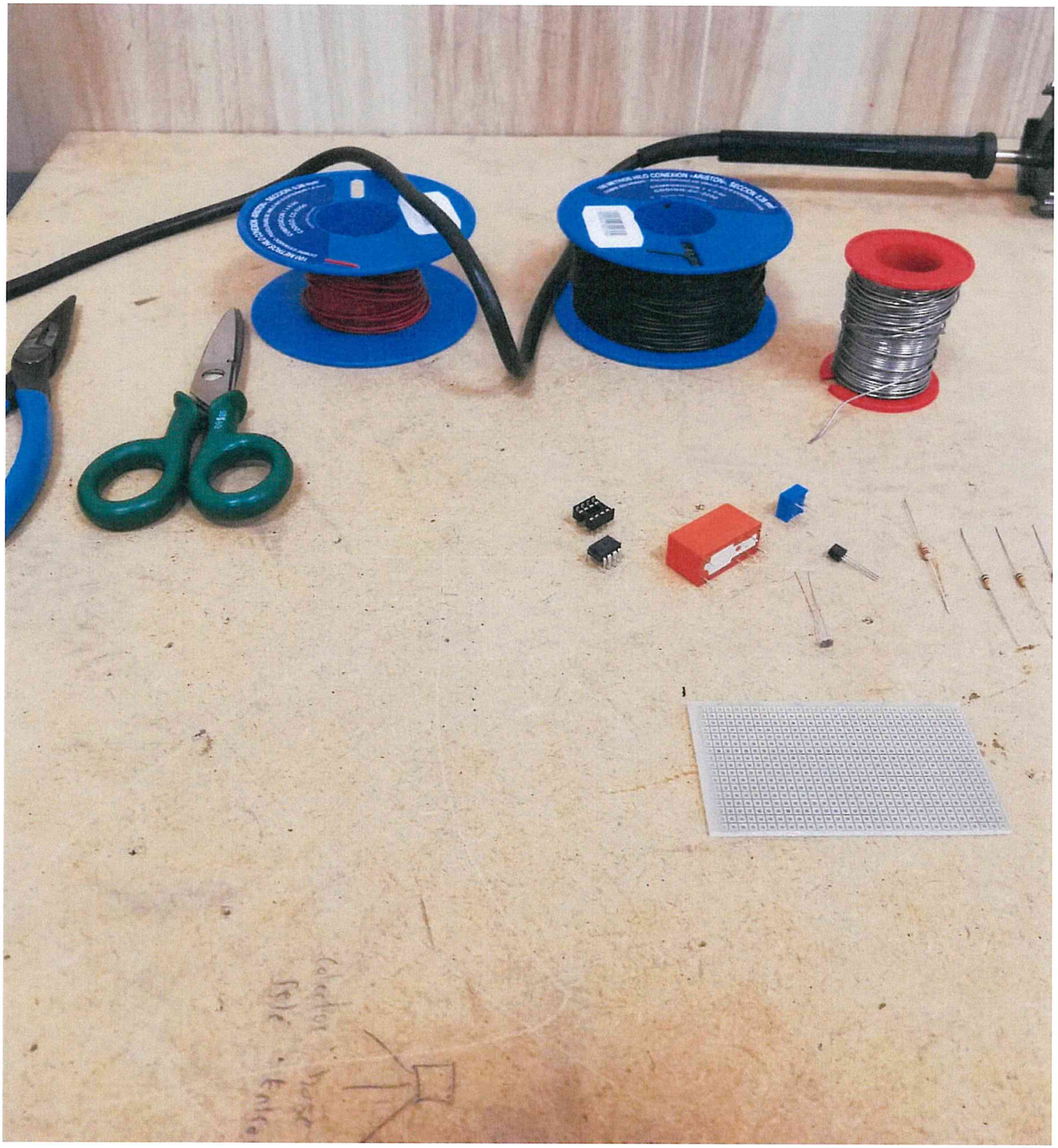
S.A.F.E.

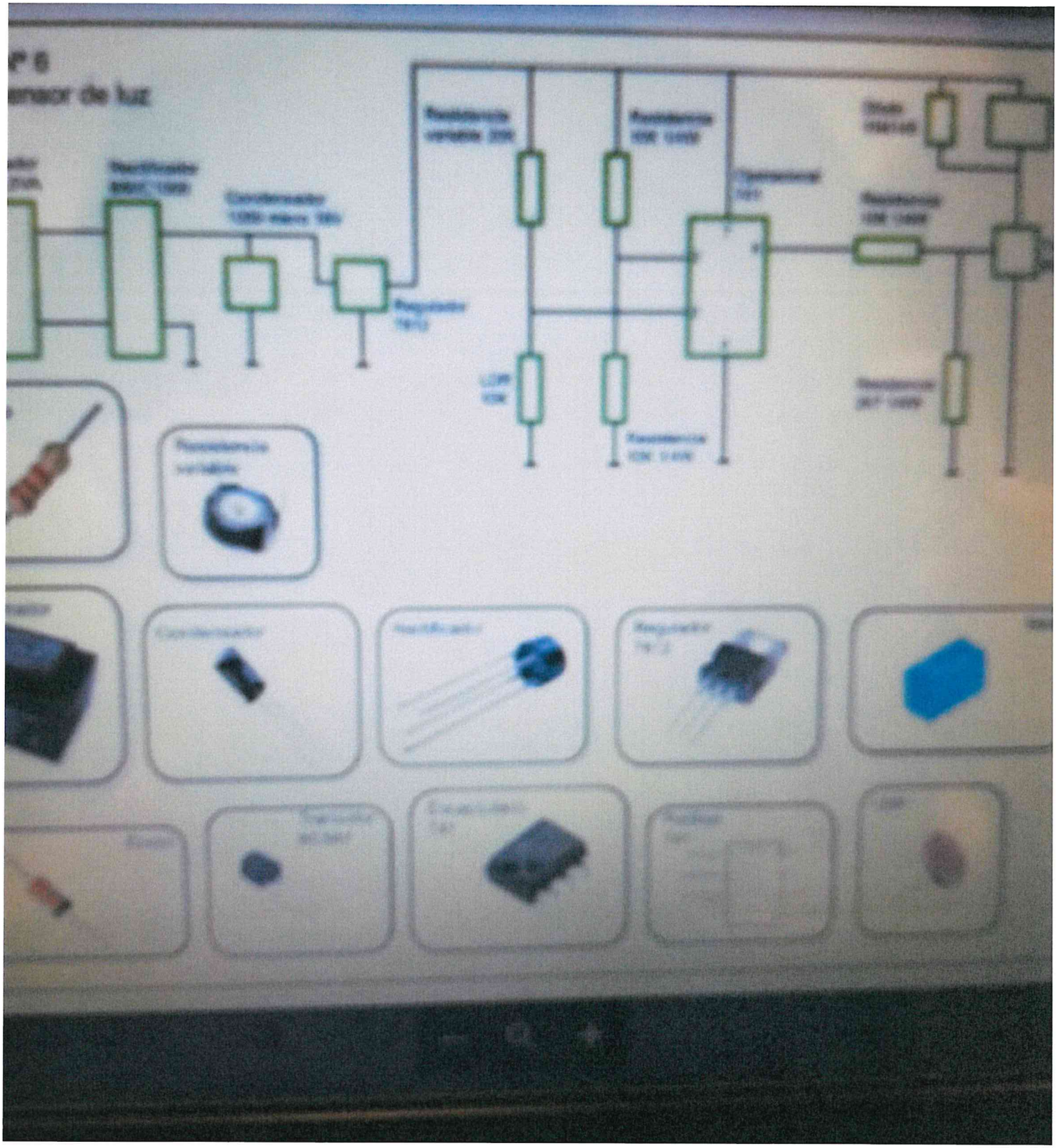
FERRARI ENTERPRISE

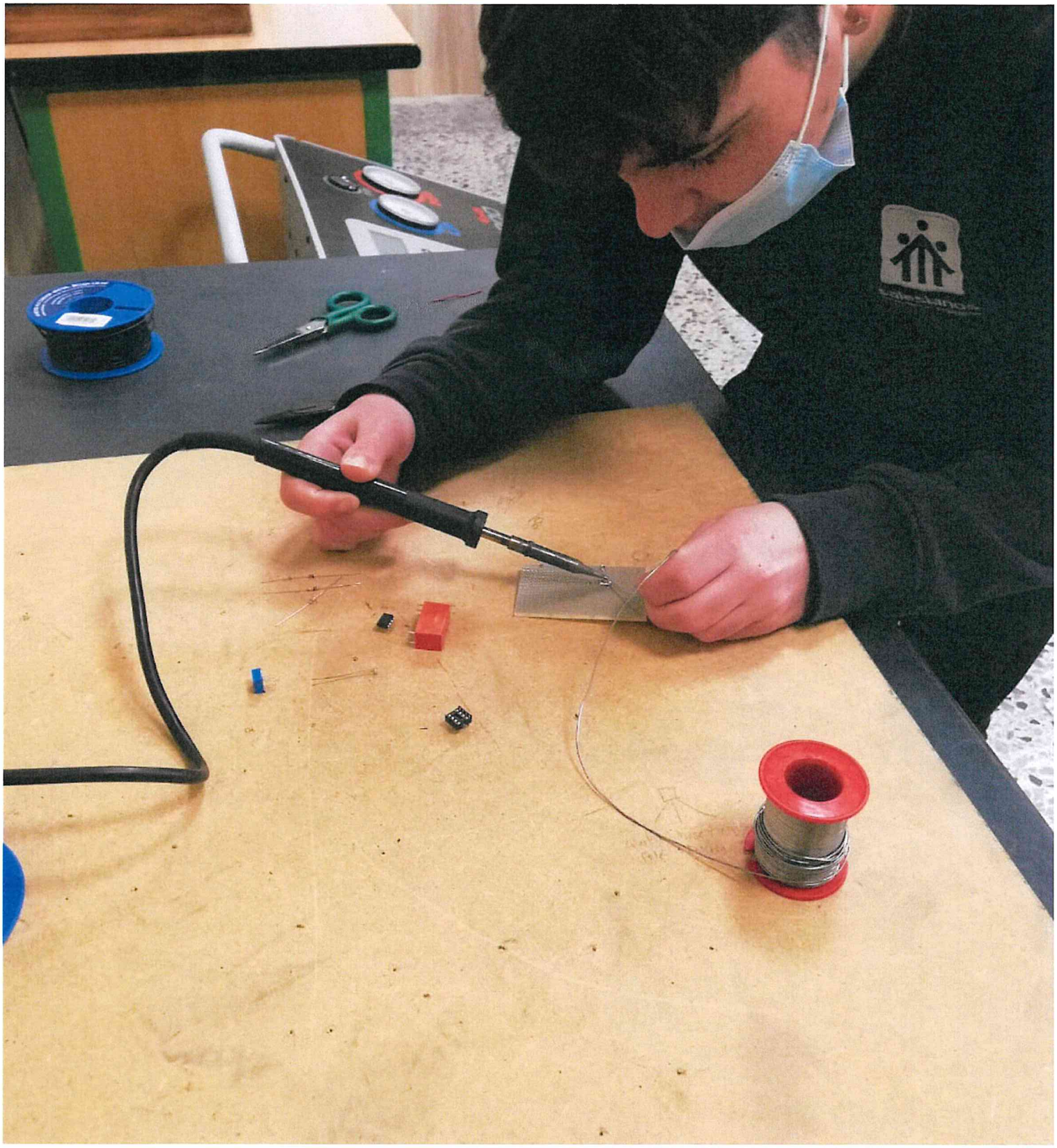
Hi everybody

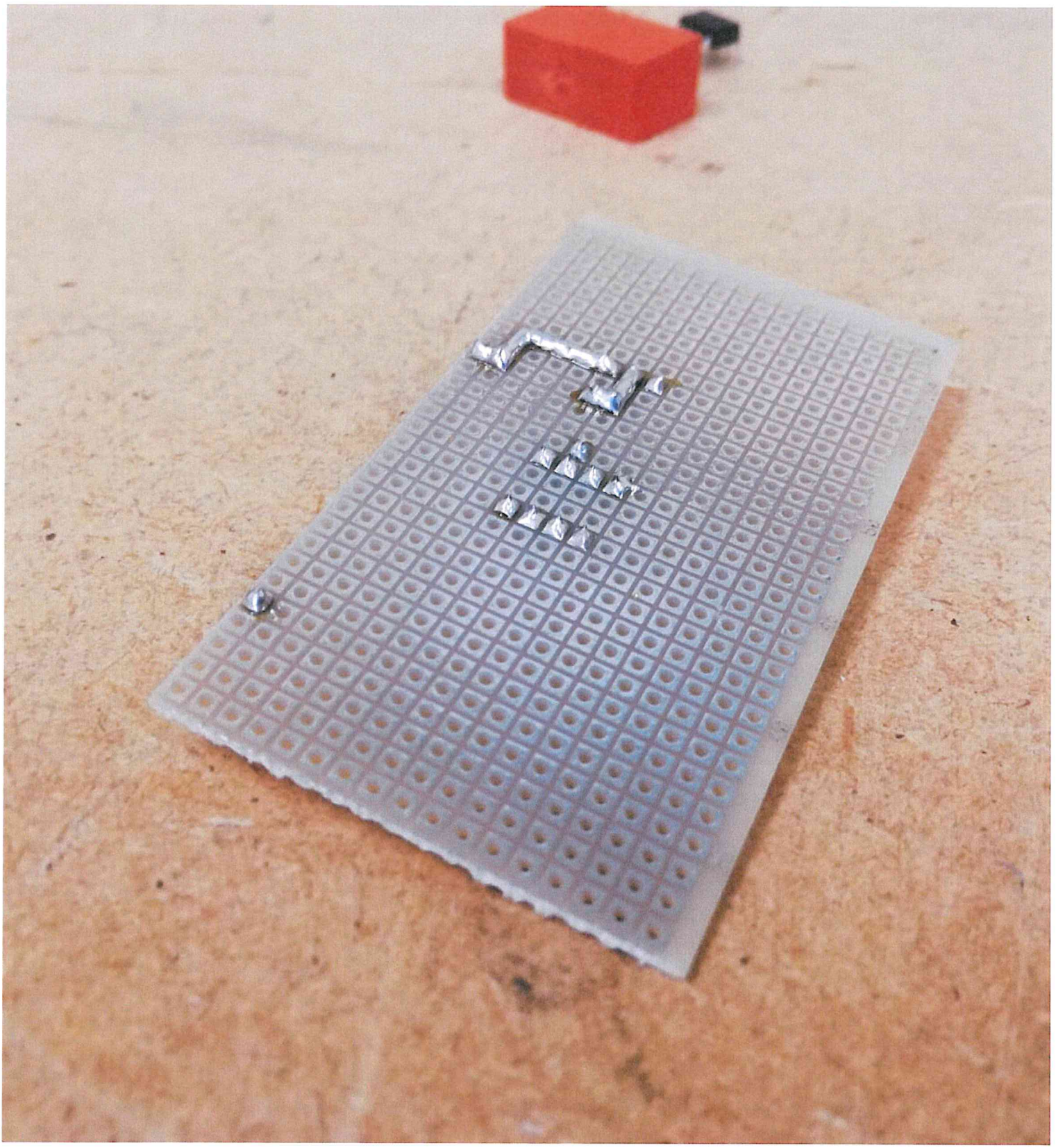
The product is a light sensor, which will be installed in a car so that the lights turn on with less or more intensity depending on how dark we are.
After Easter I will make a video in English with the photos and the test video of the product so that you can see it well.

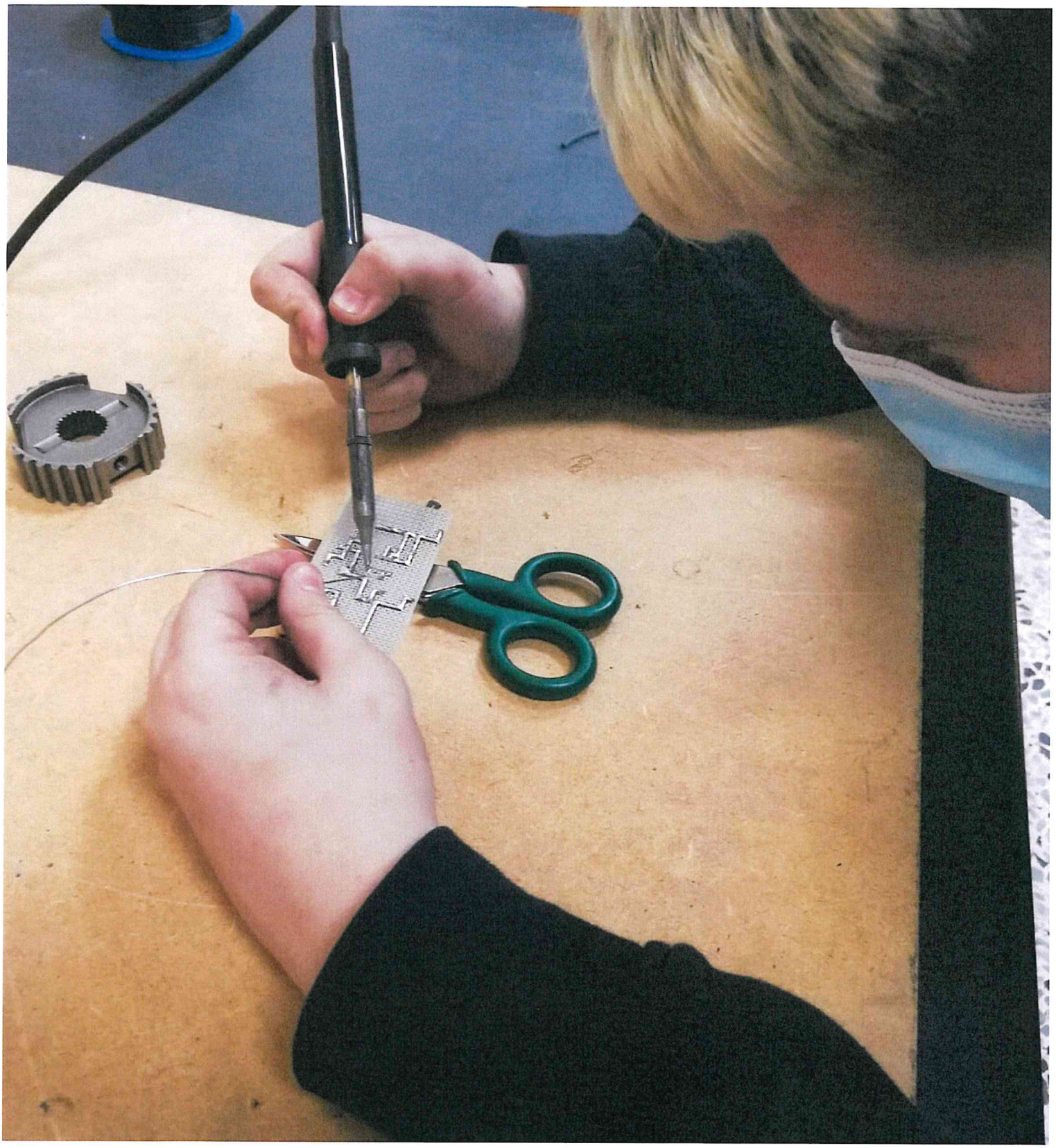
salesianosautomotion@gmail.com

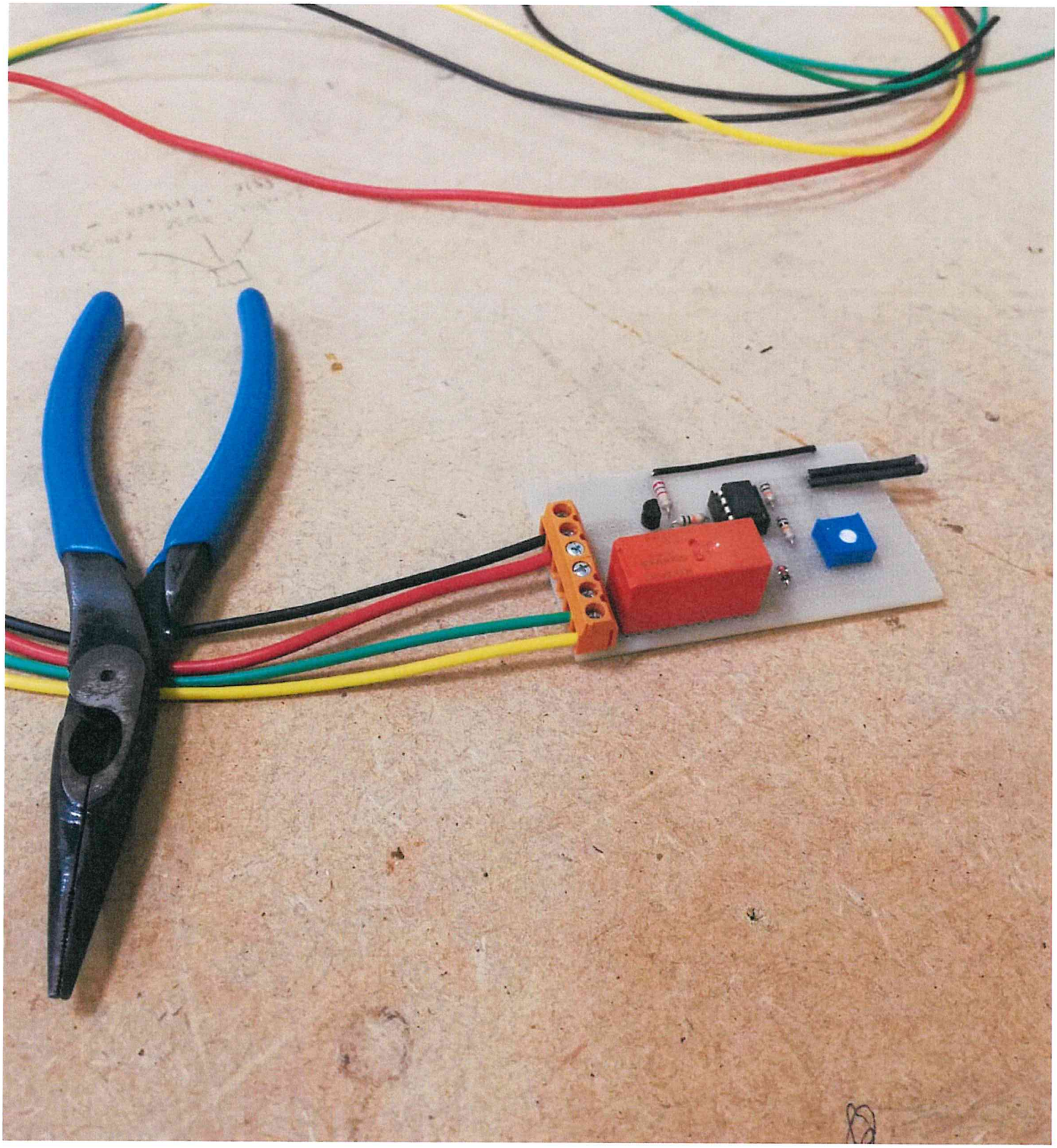


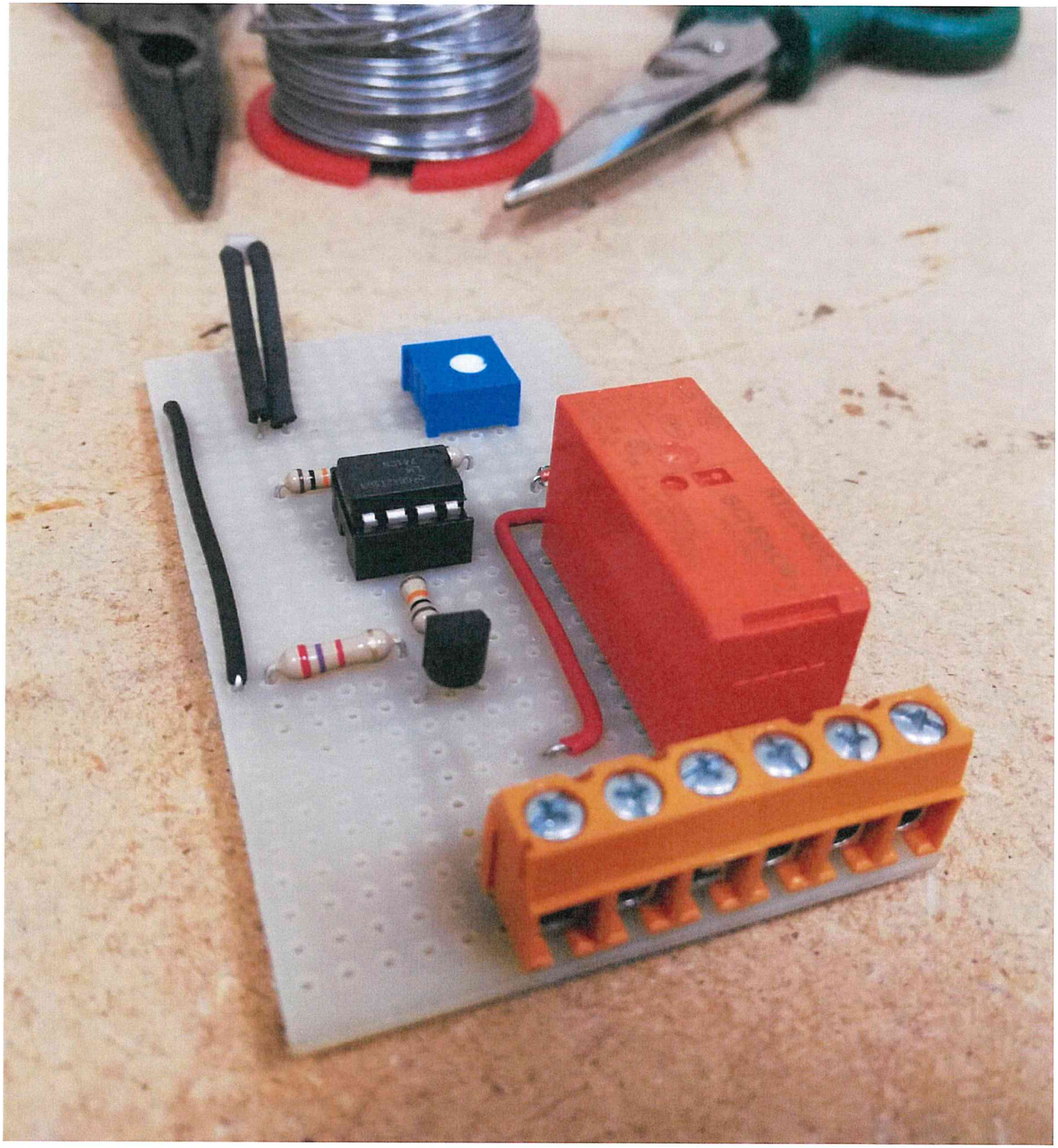












"IVAN HADZIENOV" VOCATIONAL SCHOOL

6th Science TechnoFest

2nd June 2022

CERTIFICATE

of attendance in the 6th Science Technofest

Vyšší odborná škola, Obchodní akademie a Střední odborné učiliště technické Chotěboř, the Czech Republic

has attended the 6th Science Technofest

Mariana Demireva
Principal

Професионална гимназия "Иван Хаджиенов" • Казанлък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