



NCCA

An Chomhairle Náisiúnta
Curaclaim agus Measúnachta
National Council for
Curriculum and Assessment

Junior Cycle Applied Technology Classroom-Based Assessment 2: Example of Student Work 01

January 2024



Technology cba 2

Self reflection

Introduction

In this cba I will outline everything i have learned in my 2 years studying applied technology

I will talk about the skills I have learned that have helped me make the projects .e.g laser cutter

The projects I have completed are

In first year

- Helicopter
- And scotch yoke

In second year

- Cam and follower
- Peg and slot

I will review the above projects and what I can improve on and what i done well.

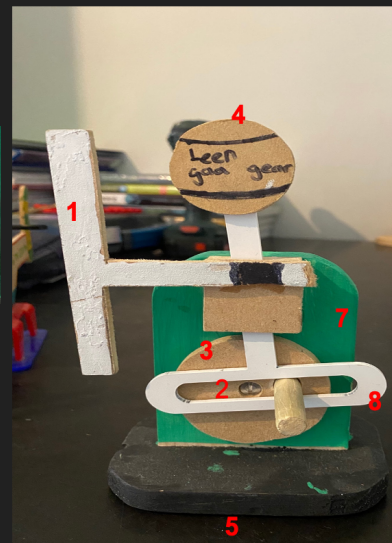
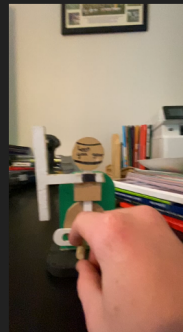
Scotch yoke

The first project I completed was at the start of first year it was called

This project involved

- basic marking out
- 1 cutting
- 2 drilling holes
- 3 Cutting a circle on a scroll saw
- 4 Design
- 5 Painting
- 6 Using a bolt and lock nut
- 7 Sander
- 8 laser cutter

Play
video



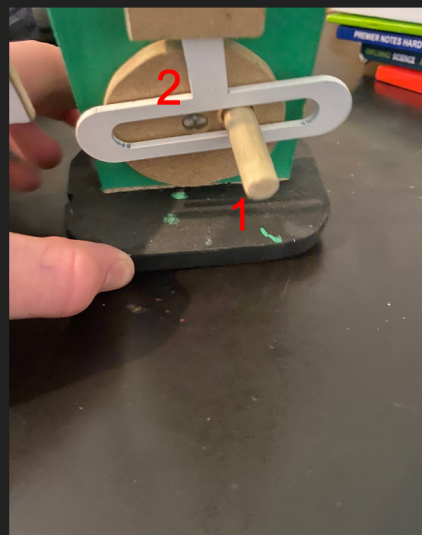
[Click here](#) to view the above video

Review

Things I felt i needed to improve on are

- Painting labeled 1: As you can see in the photo on the left the green paint has splashed across the base this is a area i need to improve on
- Design :I felt my design was messy with me using tippex and using a goal post that was too big that ended up breaking.
- Cutting on the scroll saw 2:as you can see on my project my circle wasn't cut well and there is a big gap in the circle

Teacher feedback: Nice project design could be improved. Painting needs to be touched up

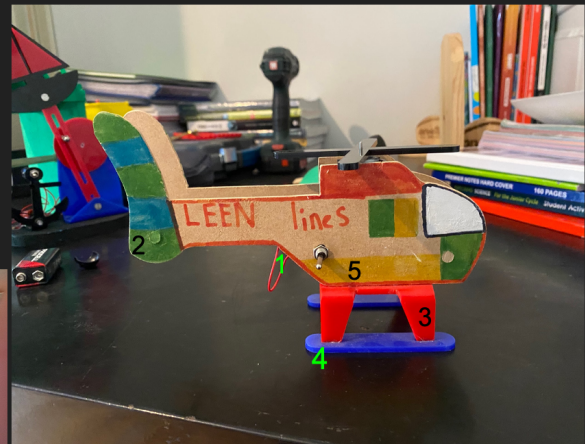


Helicopter

This was the second project I completed

The main skills I used when doing this project were

1. Soldering a circuit
2. Drilling holes
3. Bending plastic
4. Glueing plastic
5. Using a switch
6. Using a hot glue gun



Play video

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Review

The areas I felt I need to improve on the most are.

- My soldering: in the circuit was too big and not neat and tidy
- Gluing : in the picture to the right you can see the battery holder and wires have become loose from the glue.

Areas I felt were good

- The design was very good and improves the overall look of the project
- My circuit: For the first time doing a circuit it was very good and worked which is the main thing . I know it might have some flaws like the soldering but for me it was one of the areas I can take away as an area I felt I did well
- Teachers feedback: Well finished project with nice design and working motor. The wires could have been glued in place.



As you can see my wires are all over the place and not glued into place

Cam and follower

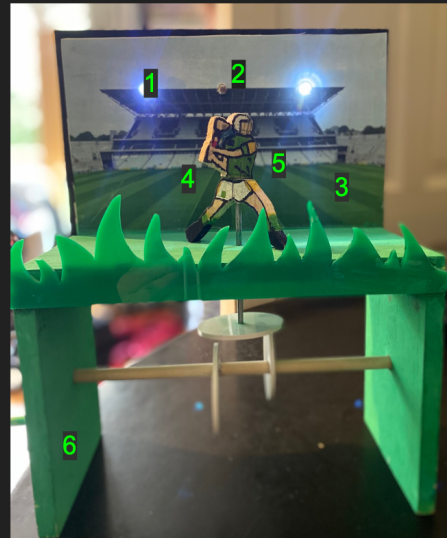
In this project skills we used were

1. Soldering a circuit
2. Adding a LDR
3. Printing out a background and sticking with modge podge
4. Cutting out hurler on scroll saw
5. Transferring player design with carbon paper
6. Painting project

-Adding battery pack to circuit



Play video



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Review

- 1 As you can see in the picture on the right my soldering of the circuit is untidy this is one area where i need to work
- 2 I also had to have two attempts at the circuit board because of an excesses amount of solder and it touched off another part of the board and then it wouldn't work.
- 3 My night time circuit also stopped working as my solder touches of booth ends of the circuit
- Other areas for work would be my players graphic wasn't well designed a needed work on and wasnt to size.

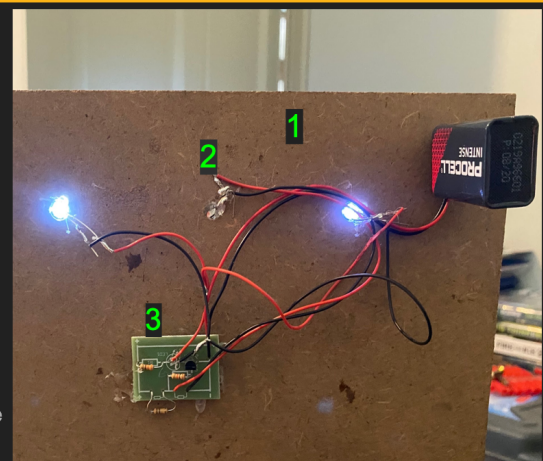
Theses are both areas where if if slowed down I could improve on and get better results and finish the project of better.

My night time circuit also stopped working as my solder touches of booth ends of the circuit

For me the areas I felt I done well was my graphic for the back ground and the placement of my lights this really gave the effect of an actual stand with flood lights beaming down.

I also think that amy cam and follower mechanism was well done and gave the effect of a player hitting the ball.

Teachers feedback: Good project could work on design of player and painting was untidy. Wires were left a little long.

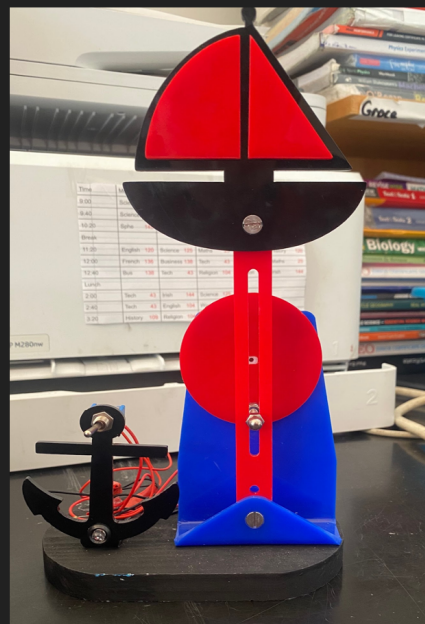
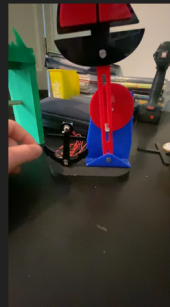


Peg and slot

In this project we were introduced to coreldraw and the laser cutter. Coreldraw was something that takes time to get used to but once i got the hang of it it was very easy to be good at. Laser work is something that i will certainly be trying to add to my junior cert project

Key skills

- Circuit
- Laser cutter
- Painting
- Design
- Corel draw



Play video

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Review

The main area for improvement after this project would be

- **1** My wire I didn't cut them short enough and this lead to an untidy finish and a lot of clutter around the back of my project.
- **2** My soldering of the circuit probably wasn't up to scratch either this is something that I have identified as a weakness in 3 of ,my projects now it is something i will need to give more time hen doing it .

Areas I done well :

My designs were perfect for the project.

My circuit was good bar the wires and the soldering it worked which is the main thing.

Teacher feedback:Excellent project lovely design wires are a bit long and the solder needs tidying.



Interview

In this interview I interviewed a mechanical engineer and lecturer you can hear it if you play the video



Play audio

[Click here](#) to play the above audio.

Weakness

For me my main weakness would be

- The soldering iron. I would say this is one of my main weakness as in the last few projects I have been untidy and sometimes I have had to re do my circuit because my soldering wasn't allowing the current to flow. This is an area that can be easily fixed if I would just slow down
- Painting my project is an area I have struggled in and an area I see as weakness that I would be trying to stay away from in the future.



Strengths

Strengths that I have identified in my junior cert project are

- Coreldraw and the laser
- Choosing graphics for my design is an area I feel I am good at e.g anchor and boat for peg and slot project
- I feel I am good as a team player and will always give a helping hand to someone who needs it in the classroom



Source of internet images: Google images

What I am thinking for my junior cycle project

- For the junior cycle project I would certainly be looking at a project with the use of the laser and coral draw. I would like to do this as it is something that I found simple and i was good at it.
- I think that a circuit is something I should also consider it is something I am on the fence about as I struggle with soldering but I think if I am to give it enough time it will work out well and I will end up with a working circuit.
- The mechanism I would be most interested in doing for my project would be either a peg and slot or a car motor like what was done last year.

Teacher annotations using the Features of Quality

The annotations capture observations by the teacher, using the features of quality, with a view to establishing the level of achievement this work reflects. The annotations and judgments were confirmed by a Quality Assurance group, consisting of practising teachers and representatives of the NCCA, the Inspectorate, the State Examinations Commission and the Oide support service.

Teacher annotations

Self-analysis of coursework elements:

The student identified a broad range of coursework elements through their engagement with projects in first year and second year. This allowed them to make some perceptive observations and some in depth self-analysis on the development of their skills to date.

Making judgements:

Judgements were made on areas of strengths and areas for improvement and the teachers feedback supported the student in this context. The student demonstrated some awareness of how their judgements would inform future work. A greater level of awareness could have been demonstrated by providing more in-depth reflections and by providing more specific targets for improvement.

Communicating their CBA:

The presentation of the findings was of an excellent standard which included the labelling of key parts of projects, videos of projects and an audio interview. The student carefully considered what information accurately communicated their Classroom-Based Assessment.

Overall judgement:  Above expectations