



Moo Cow Diarrhoea Tasting Club MAGAZINE!

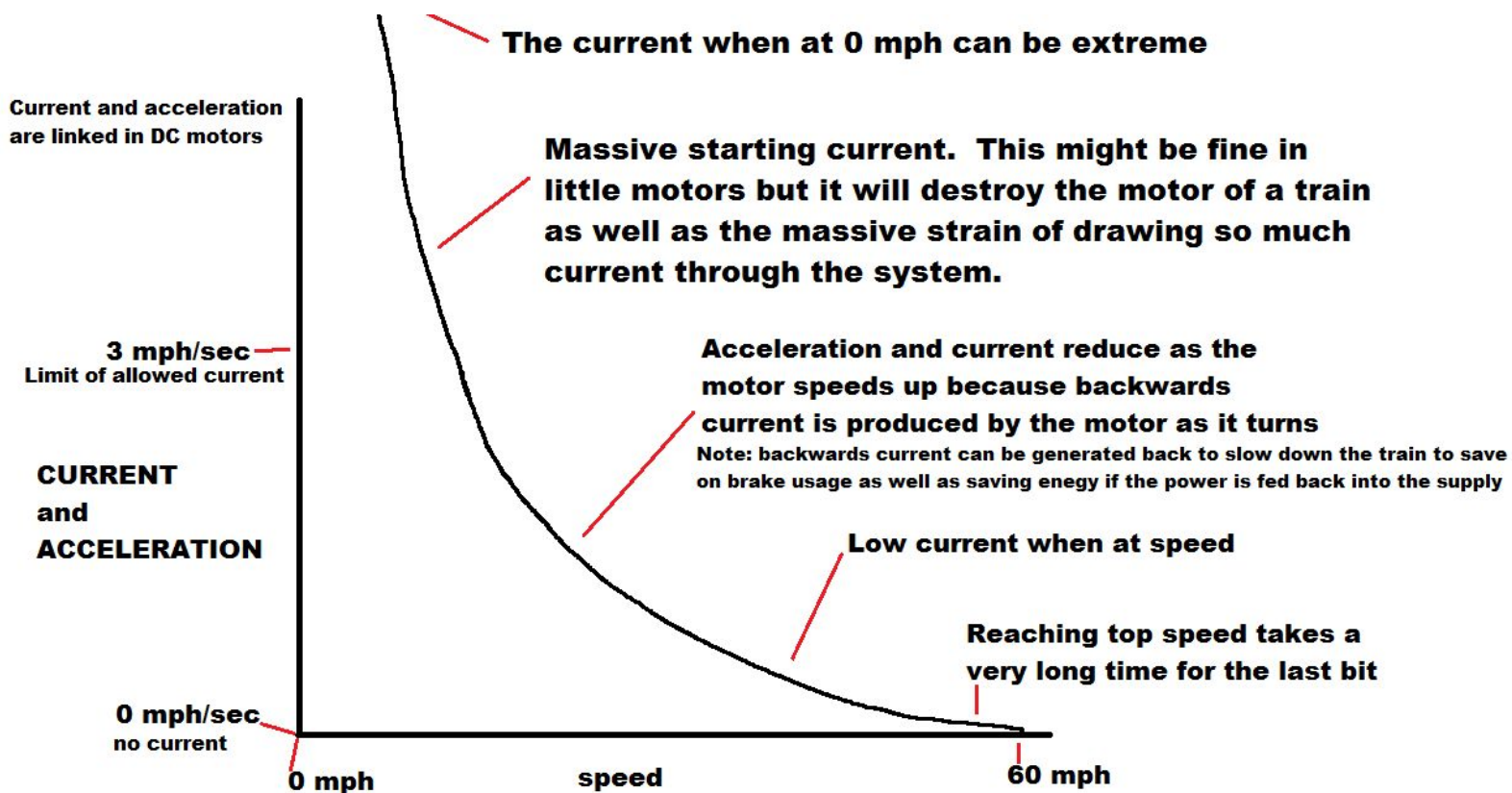
- **Ben and Adam go to critical mass**
- **Ben goes to France, Luxemburg and Germany**
- **TheHookedMetapod surfs loads of trains**
- **Guide to AC and DC pulsing**

August 2017

WHAT IS DC PULSING

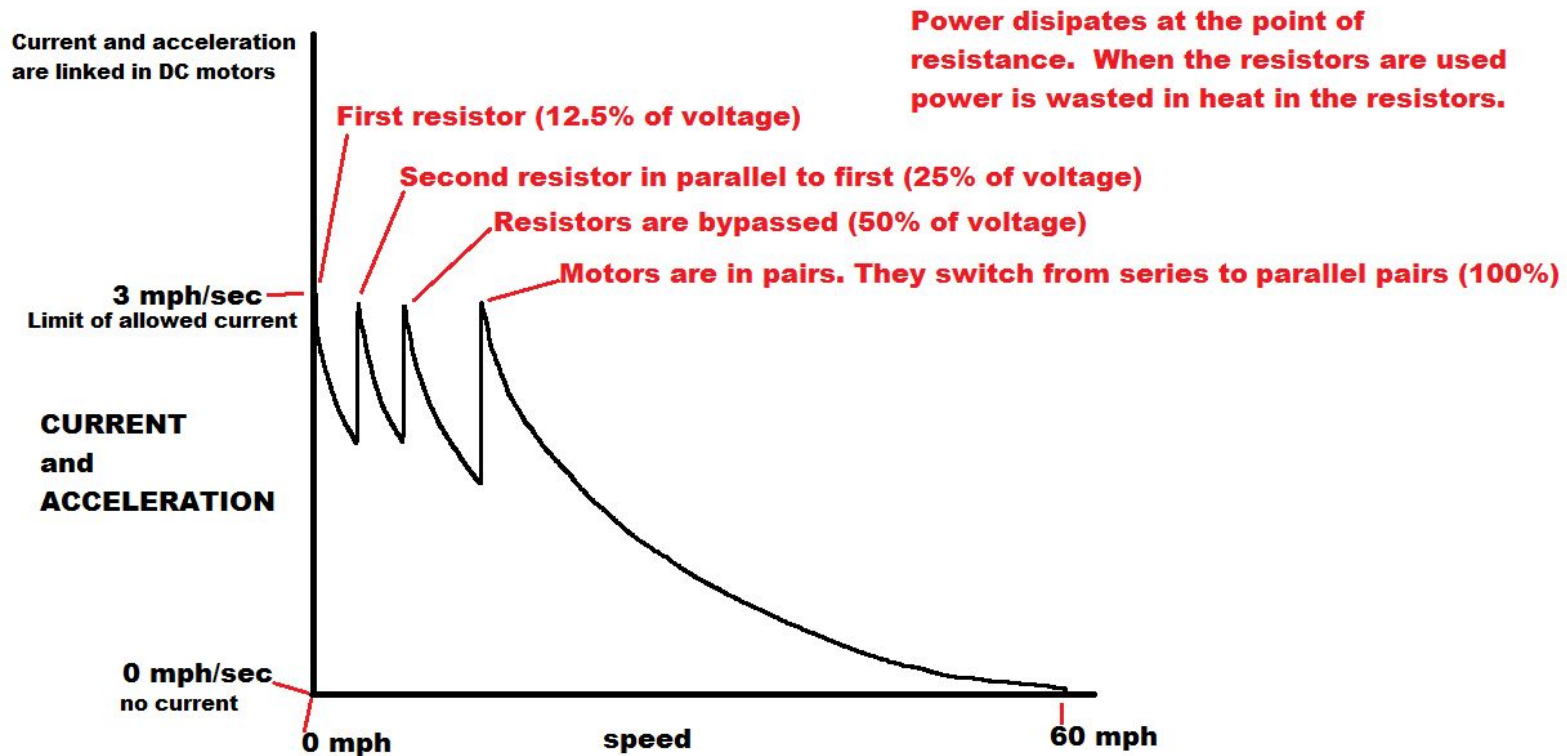
Before I can begin to explain DC pulsing, I need to explain the characteristics of DC motors. Before VF drives were invented in the early 90s, all motors in trains, and all motors in lifts above 2.5 m/s were DC. This is due to the instant torque that a DC motor produces, while AC motors only deliver torque when running close to the supply frequency (which is fixed), making AC motors unsuitable for applications where speed is always changing and torque is always needed. DC motors are not as efficient as AC motors but DC was the only option for trains.

The main problem with DC motors is the massive current they pull when they first start. On a large motor this current is so large it would destroy the motor unless the motor was built to withstand it (which would be changing other properties of the motor). The large current draw would cause a lot of stress on the system as the initial current is many times the current actually needed for the rest of the operation of the motor.

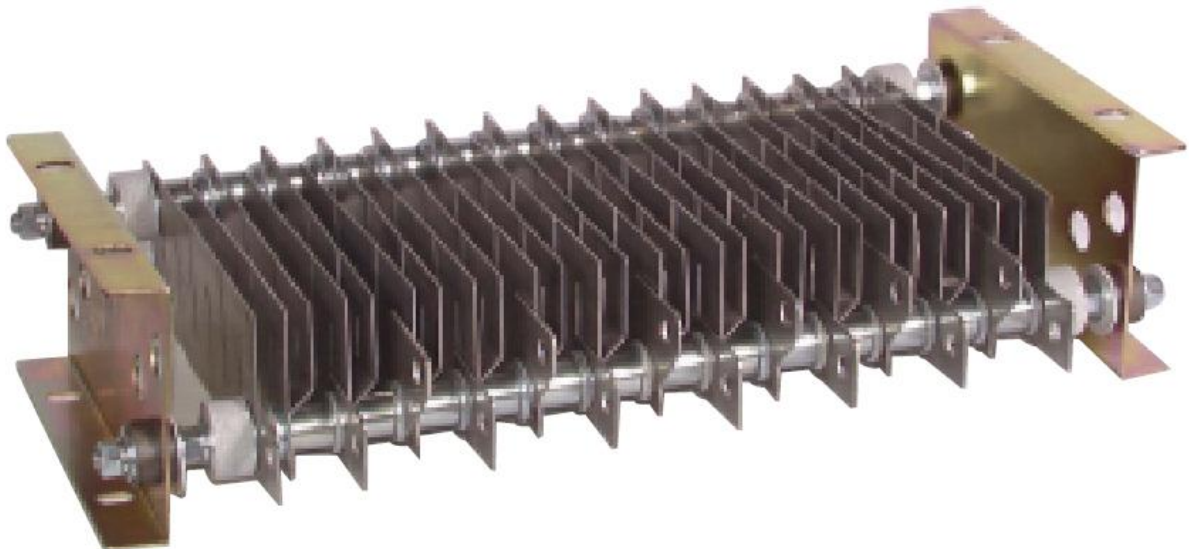


Notice how acceleration and current are linked. When the motor is accelerating hard it is using the most current. When it is at speed it is not using much current even if it is running at full power. This is because the backwards current from the motor cancels out the forwards current as the motor increases in speed. When the train slows down the backwards current can be used as a power supply and it is either dissipated in the resistors or put back into the main power supply to reduce electricity consumption. Generating back the backwards current turns the motor into a generator and slows the train down. This saves on brake usage.

The only way around this is to start the motor off slowly. If the supply is AC then a transformer could be used before it is converted to DC for the motor. If the supply is DC then resistors have to be used which is very wasteful as energy will be dissipated in the resistors. Special types of resistors are used where the resistor banks have space to heat up and massive amounts of current is passed through the resistors.

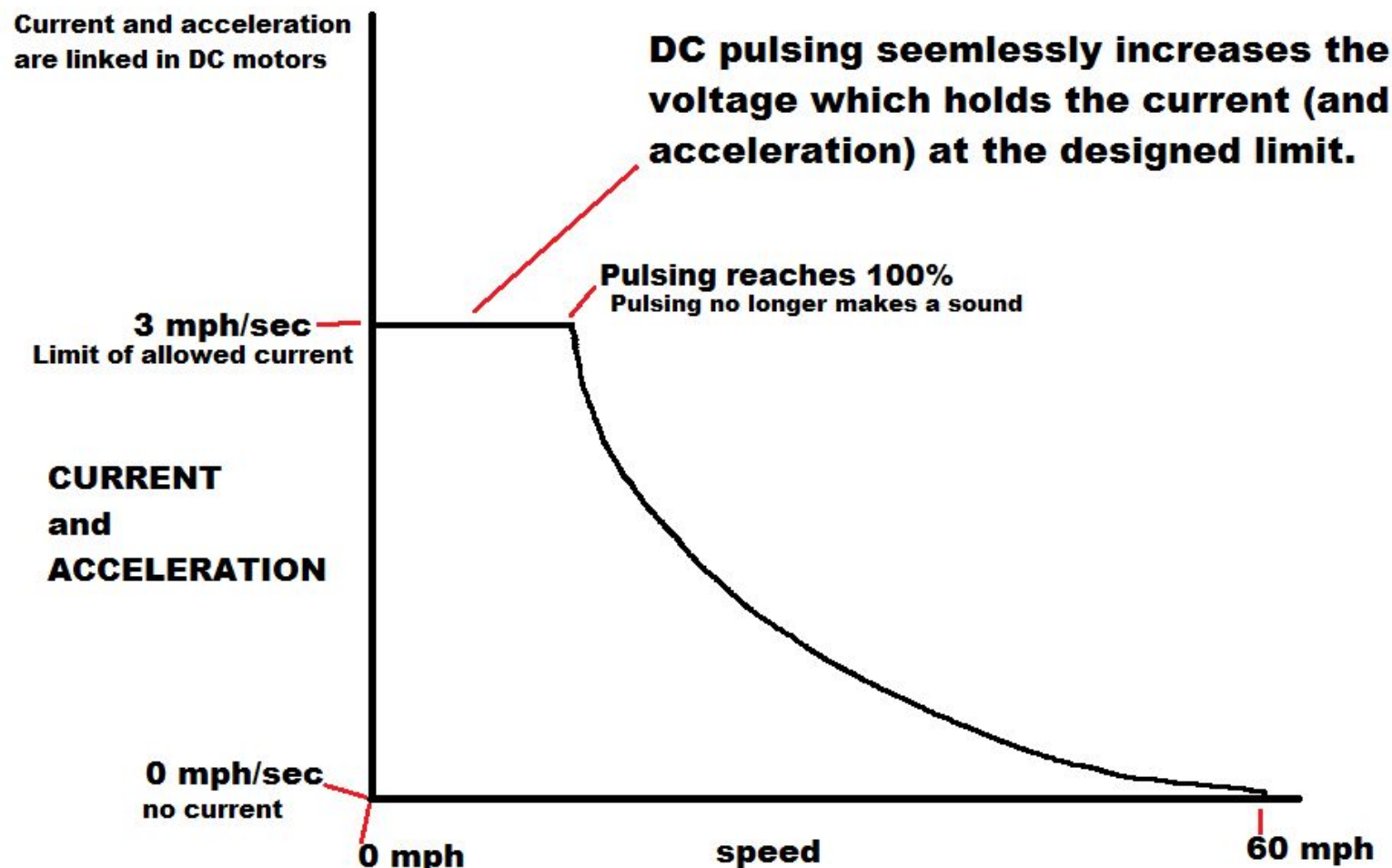


Notice the effect that bringing in the power slowly at stages has. Firstly power is fed to the motor through a resistor bank. Then a second resistor bank comes in parallel which doubles the power. Then the resistors are bypassed. The motors on the train are grouped in twos. Initially they are in series, which has the effect of halving the voltage to them. The last stage when the motors go to full power is that the motor pairs are switched to parallel. All of these changes in supply happen at the right moment so that the motor current doesn't exceed its specification.



Power dissipation resistor bank. This type of resistor is designed for the massive amount of current that will flow through it.

Now we come on to DC pulsing. In the late 70s improvements in transistors meant that they could be used to switch large supplies. Transistors were used to switch a supply to a motor at 200 times a second so that the percentage of the time that the power was on to the amount that it was off would give you an average voltage. Capacitors are then used to average out the pulsing into the new voltage. The advantage of this is the the changes in voltage are completely seamless, rather than happening in stages, and so that there are no resistors used and no power is being dissipated anywhere except inside the motor.



When the motor first starts, DC pulsing is used to change the voltage so that the current (and acceleration) are constant at the specification of the system. As the train speeds up the voltage is increased so that the forwards current is kept constant as the backwards current increases. When the train slows down pulsing is also used in reverse on the backwards current (so it is either dissipated or put back into the power supply) at a constant rate to allow a smooth deceleration.

DC pulsing works by turning the motor on and off 200 times a second. The amount of time it is on and the amount of time it is off changes so that the overall percentage of time it is on gives you an average voltage. The sound you hear on DC pulsing is the sound of the motor being switched on and off. This is typically 200hz because DC pulsing is an old technology and back in those days transistors could not switch as fast as they can nowadays. If the transistor switches too fast then power will be dissipated in the transistor. Transistors are not designed to be the point of resistance and it is vital that it performs a clean switch without ever being in a halfway state. The professional way of switching the supply is to change both the amount of time it is on and the amount of time it is off so that the pulsing frequency is unaffected by the pulsing percentage. You will not hear any change in sound as the pulsing percentage is changed until it reaches 100% where it will go silent. This is called pulse width moderation as the width of the pulse of electricity is changed on each pulse, without the overall number of pulses being effected. The only exception to this is the Paris RER trains which start of at a lower pulsing rate when it first starts because the very low percentage of time the power is on would mean that the power is switched off pretty much immediately after it is turned on (in other words the pulses are too short, which I am guessing could lead to an unclear switch between off and on).

DC pulsing inceases the voltage as the train speeds up continuously so that the current stays exactly at its limit throughout the pulsing stage.

A clean switch is vital for the transistors to not destroy themselves. Transistors can not cope with dissipating any power (power dissipates at point of resistance). The transistors must be either fully on or fully off, and must instantly switch between the 2 states.

**25% pulse. It is on for 25% and off for 75% of the time
The voltage produced is 25%**



Pulses always happen at the exact same interval. This is industry standard. This means the time it is on and the time it is off changes as the pulses increase. This means that the pulsing sound produced does not change in pitch as the train speeds up.

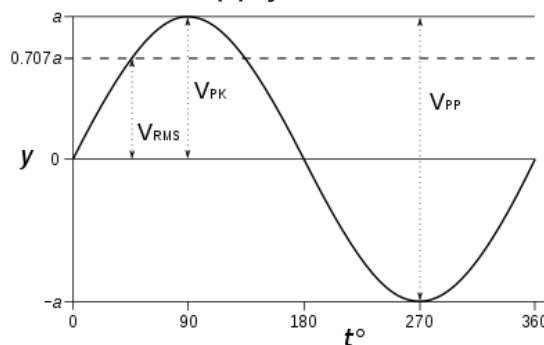
The pulsing frequency is set by the specifecation of the transistors. Faster pulsing is better but if it is beyond the transistors limit it will disapate power in the transistor while switching. DC pulsing is an old technology and transistors were not as advanced back then which is why DC pulsing is always low pitched compared to modern AC pulsing.

WHAT IS AC PULSING

Before I can begin with AC pulsing I first need to explain how AC works.

With DC electricity simply flows. It goes from positive to negative (at least the force of it does, the electrons are actually moving from negative to positive, but to understand it you have to think of it as positive to negative as that is the way that it works in practise). DC is simple, it just flows and is what you think of as an electrical circuit.

AC is much more complex. AC has no overall forwards movement. It is constantly changing direction. No electricity ever flows on average as it's back and forward motion cancels it out. This can be shown as a sine wave. Effectively it has no voltage, except it does. The voltage is the root mean square. This means the negative half of the electricity is flipped so a voltage reading can be read. There are 3 voltage readings of AC. The peak is the top to bottom reading of just the forwards movement. The peak-to-peak is the top to bottom reading of the entire wave (forwards and backwards). And root mean square is the average voltage and is what is used when the voltage of an AC supply is stated.



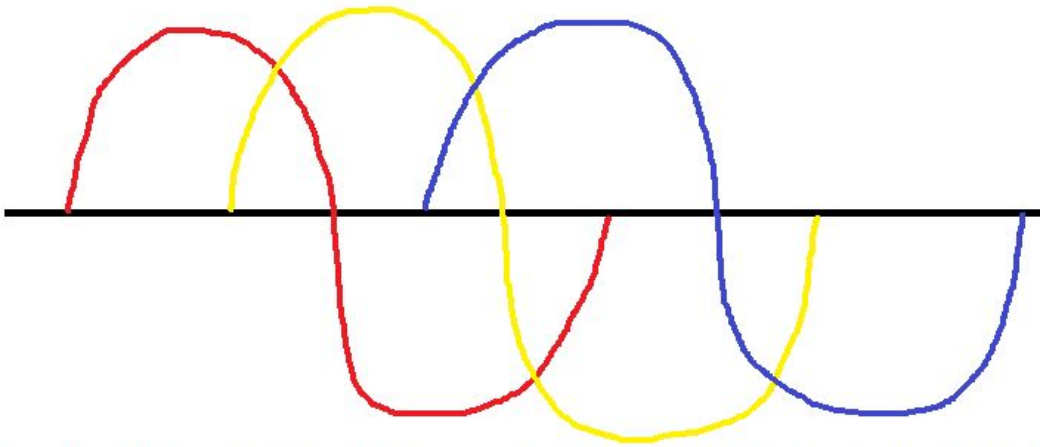
AC is used instead of DC for two reasons. AC makes a rotating field in a motor (this is now a historical reason due to VF drives now being used). The main reason is AC can be transformed for power distribution. Voltage has to be raised to give electricity to towns across large distances from the power station, otherwise massive cables are needed. Amps needs large cables, volts don't. The total power in watts can be transformed into different voltages with corresponding amps. Watts = Volts X Amps.

To transform electricity a transformer is used. A transformer generates a magnetic field and generates it back at a different voltage. AC electricity makes an AC magnet. AC magnet makes AC electricity. DC electricity makes a DC magnet. DC magnet does **NOT** make DC electricity.

This means that DC can not be used. Generating a DC magnet from DC electricity will mean that the magnet can not then generate back electricity. A DC magnet has forwards force which makes it useful for holding a door shut, but it can not be used to transform electricity to different voltages.

This is why all electricity supplies are AC. A change in magnetic field makes a change in electricity (when wires are coils around a magnet). A DC magnet will not make DC electricity (because it never changes), but an AC magnet will make AC electricity.

AC motors have 3 phases. Each phase goes to one of the 3 magnets in the motor. Each phase goes between positive and negative (which pushes and pulls the core of the motor) The phases are offset which makes a rotation in the pushes and pulls of the 3 magnets (think of christmas chaser lights). This makes a rotating magnetit field.



AC motors are only efficient when the frequency of the AC power is close to the frequency of the motor. The motor is sped up by the rotating magnetic field slipping the core of the motor. The slippage only works if the frequency of the electricity is a small amount above the speed of the motor. Until AC pulsing was invented trains could not use AC motors. This is because the mains runs at a fixed 50hz and the overhead supply is single phase. You can get away with single phase for a 3KW hoover, but nothing more. You can get away with a fixed 50hz supply for motors up to the size of a 2 m/s lift motor, but for proper big motors, AC has been unuseable until VF drives were invented in the 90s. Before this it was always converted to DC and used in DC motors

Also another type of motor is the synchronous motor where the rotating field directly pulls the core of the motor. Because there is no room for acceleration, synchronous motors have only come into use very recently with modern VF drives.

AC motors are much more efficient than DC motors but only when the speed of the motor is close to the frequency of the electricity. Due to the fixed frequency supply of electricity, AC motors could only be used on fixed speed applications. This means they could never be used on trains, and could only be used on lifts of up to 2 m/s. This is because the starting torque of an AC motor is very low when the frequency of the electricity will be the equivalent of the motor being full speed.

Only once sine waves could be artificially created could AC motors be used on all applications which made the use of DC motors obsolete (Note that a brushless DC motor is actually an AC synchronous motor with internal VF drive).

It was not until the early 1990s when transistors could be switched fast enough at large loads for sine waves to be generated.

As transistor speeds became better the larger AC motors could be pulsed. The max pulsing speed tolerance of a transistor is offset by how much current is being pulsed. This is why transistor technology in the 90s is higher pitched on a lift, and is low pitched on a train.

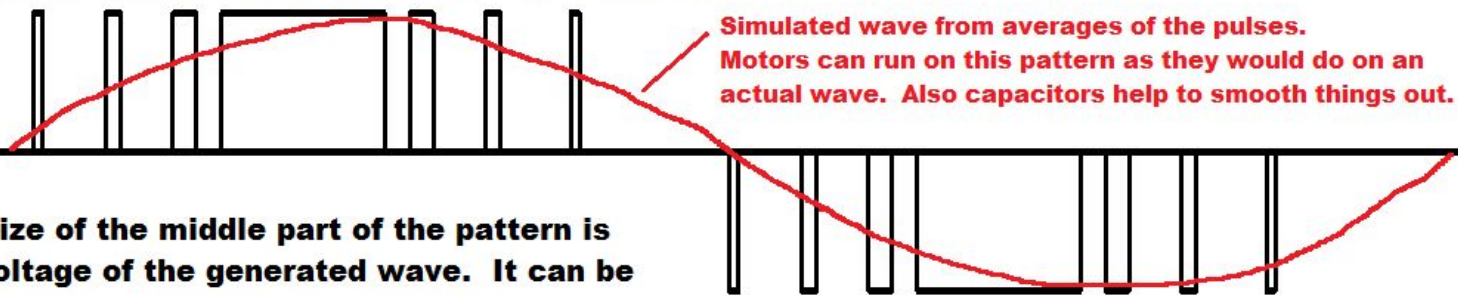
To pulse an AC wave, the electricity supply to the transistors must be DC for the transistors to pulse out an artificial sine wave. If the power supply is AC it must first be converted to DC for the new AC supply to be generated.

Remember that transistors can not produce smooth voltage curves, they can only be off or on, never half way as that would make it the point of resistance and the point where power is dissipated (transistors are not designed to dissipate power). To pulse an AC wave a pattern is used that averages out to produce the increasing and decreasing voltage of a sine wave.

There are 6 transistors used to do this. There is a transistor for both the forwards pulses and backwards pulses. Three separate waves are pulsed for each phase of the motor to create the rotating magnetic field.

AC pulsing is just like DC pulsing, but a pattern is pulsed. The pattern is pulsed with both positive and negative pulses. The pattern represents the sine wave of an AC supply. As the train speeds up the pulsed wave speeds up so that the generated wave is always slightly faster than the motor speed, at the optimum slippage for best efficiency.

Note: If the overhead supply is AC it must be first converted to DC for a pattern to be pulsed



The size of the middle part of the pattern is the voltage of the generated wave. It can be increased and decreased as needed.

Note: The pattern is being produced 3 times at once at offsets for the 3 phases of the motor.

The speed of the pattern is the speed of the output wave. The entire pattern is sped up for the output wave to increase in speed. This makes an audible speeding up sound.

The pattern needs to contain as many pulses as possible to make the output wave more accurate. But there is a problem that the transistors have a limit of how fast they can pulse without power being dissipated within the transistor. As the pattern is sped up it has to be simplified at regular stages to stop the number of pulses increasing beyond specification. This creates the classic 90s VF speeding up sound which keeps jumping down like it is changing gear.

This pattern pulsing method is old and nowadays a different method is used. Remember with DC pulsing that it is industry standard for the pulses to happen at regular intervals, and that the output of the pulsing should not affect the fixed frequency spacing between pulses. As transistors got even better into the 2000s. The faster pulsing speeds allowed the system of pulsing at a set rate to be adopted for AC pulsing. The pulses still averaged out to make a sine wave, but the pulsing is now fixed rather than using a pattern. This sadly means that the interesting sounds of AC pulsing are now lost. A lot of modern trains such as electrostars (including the 2009 underground train) will start with fixed AC pulsing but will switch back to pattern pulsing when the train reaches 25 mph (18 mph on 2009 train) so that the pulsing is accurate as there are less pulses per wave as the output wave gets faster.

THE HOOKED METAPOD'S PAGE

Hi, i'm The hooked Metapod, a trainsurfer from Germany. Until now I have only ridden on the back of trains, but hopefully there will be more soon! I wait till the train starts moving and then I hop on. My fastest train was 100mph.



Thumbs up!
People on the platform see me on the backs of trains. Some people wave back, some look disgusted, but mainly it is not the people on the platform who phone the police. The problem is if a train driver sees as they radio through.



No hands holding on!
I can text
people while
surfing trains!

Climbing on the
front of trains is
surprisingly easy
in Germany.

It is very risky as I
would get in a lot of
trouble if I was caught.

PINK HORSEY AND UNICORN GUY'S PAGE

Pink Horsey and Unicorn guy woke up to something shocking, their bus had disappeared from the ground floor of the car park. They were camping out in the motor room with Grey horsey, and didn't hear the thief. They went to tell grey horsey, who might have been awake as they couldn't hear his snoring, but to their surprise, he wasn't in the motor room, or on top the lift, or anywhere near the car park for that matter.

Pink Horsey and Unicorn guy were very stressed. They ran out of the car park and saw their bus driving the wrong way down a one way street at speed, and Grey horsey was driving it. The bus was swerving all over the place. "STOP!!!!" yelled Unicorn Guy. After some shouting Grey Horsey stopped the bus. "What the fuck are you doing with my bus!!!" shouted Unicorn Guy. Grey horsey replied "ba blar ba da da dar dar blehhhhh" and he was sick all over the steering wheel. It was at this point that Unicorn Guy remembered that Grey Horsey had been eating pink and yellow spotted mushrooms last night which they had brought from the mythical creature convention.

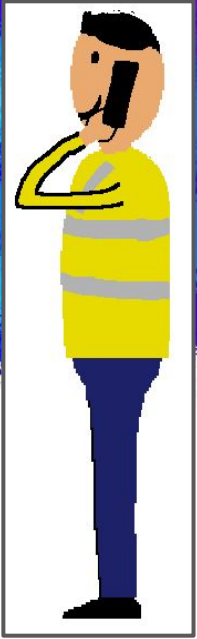
As Grey Horsey was completely off his head, and Pink Horsey had a massive hang over, Unicorn Guy decided that now was a good time to go tram surfing. He got in the driving seat, and drove the bus to the tramway while trying to avoid touching the sick on the steering wheel, which he failed at doing so and got it all over his hands.

Unicorn Guy told Pink and Grey Horsey to have a rest in the bus while he went and surfed a tram. Pink Horsey fell asleep, but Grey Horsey was still high on Mushrooms and was jumping about all over the place as well as rolling on the floor while saying random words.

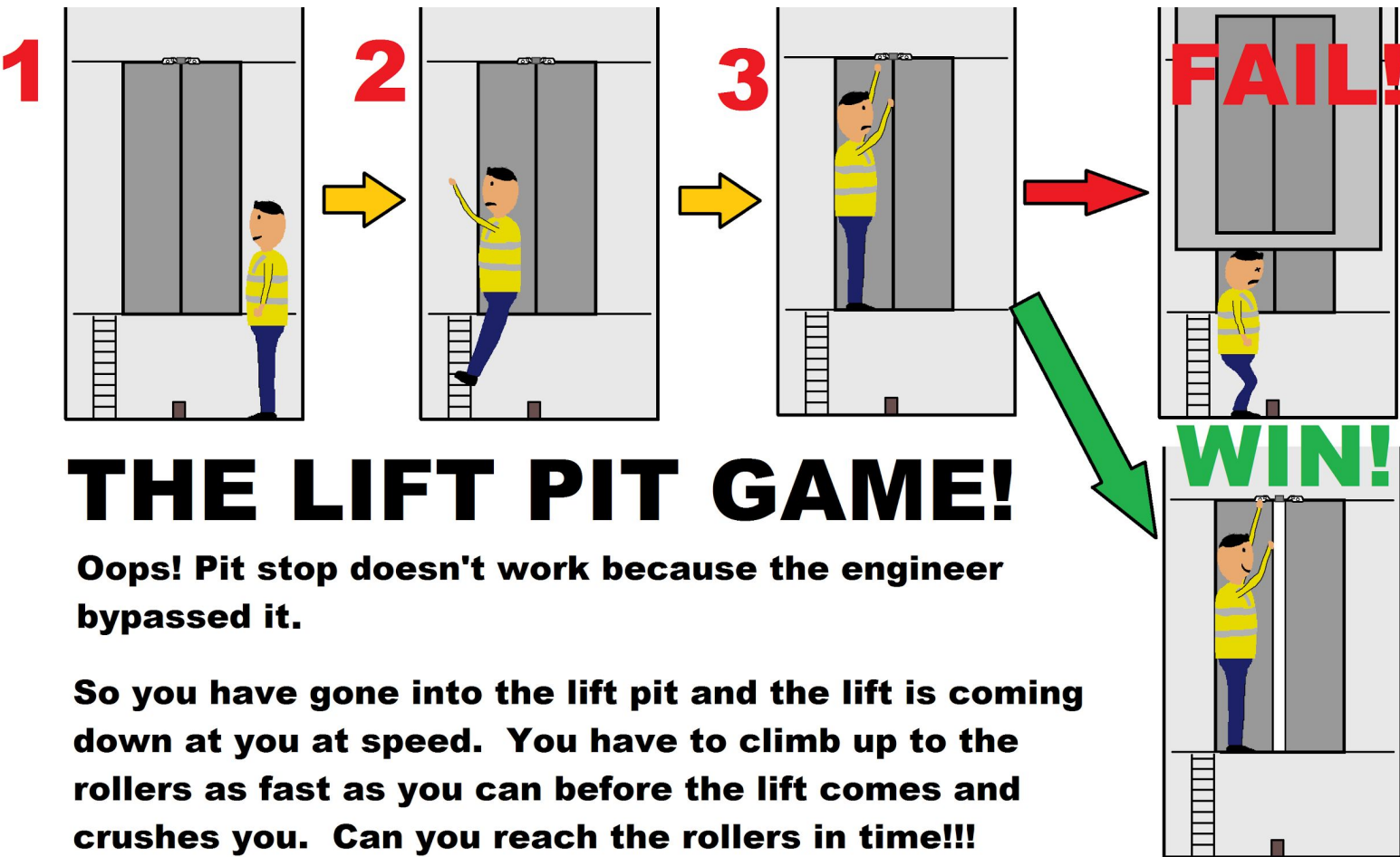
Unicorn Guy didn't want to miss out on his chance to surf a tram and a tram had just stopped at the station. He jumped on the back of the tram and Grey Horsey did the same. The tram started moving and Grey Horsey was sick again and it went over everyone at the tram stop. Then Grey Horsey fell of the tram, pulling Unicorn Guy with him, but luckily the tram was only going 5 mph and they were not hurt.



JORDAN'S PAGES



This month I have been standing in lift pits while the lift comes down as a game of dar to see if I get crushed by the lift!!!

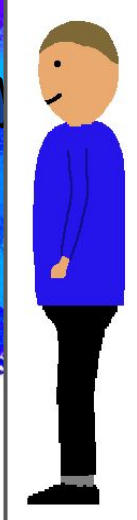


THE LIFT PIT GAME!

Oops! Pit stop doesn't work because the engineer bypassed it.

So you have gone into the lift pit and the lift is coming down at you at speed. You have to climb up to the rollers as fast as you can before the lift comes and crushes you. Can you reach the rollers in time!!!

FAILS IN GERMANY'S PAGES



Lift adventure with Beno, Eliwah2, LiftsInHessen, The hooked Metapod, and Trizocbs.

This month I met Ben, David, Elias, chris, and Trizo for three days to do a lift adventure.

And yet another Ecodisc where the fucking dumb Engineers don't know anything about the logic they are installing and they left pre-doors disabled, which is fucking stupid. And as an unofficial unauthorised Lift engineers we obviously had to enable pre-doors. Now the lift feels much faster - YAY!



We had a lot of fun reprogramming this Ecodisc until some random cunt Living opposite to the lift noticed us.

I wonder why my triangle key is in front a Kone car here. I also wonder who replaced Dedicated to "People flow" with "Lift surfing" here... I am sure it was not Ben.



→ Continues on the next page.

FAILS IN GERMANY'S

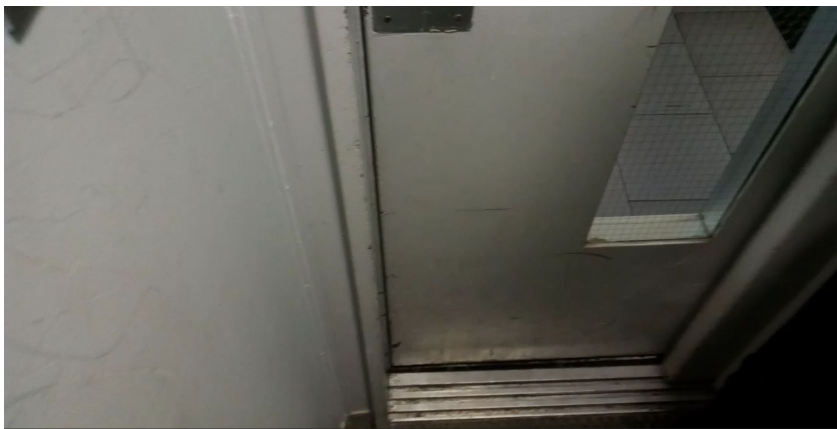


SECOND PAGE



We managed to get into a really awesome, big Otis motor room of a tower block. The logic sadly has been replaced with NewLift, but it still runs pretty good.

Also we managed to sneak onto this really Nice roof of a 17 floors building..



We managed to get down to the secret Basement of this nice old swing door lift as well.

ADAM'S PAGES



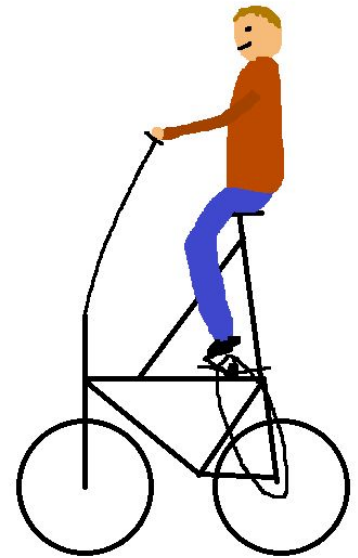
CRITICAL MASS

Believe it or not we are not referring to a certain young bloke (who definitely does have a critical mass)

We all met up on the south bank. There were lots of chavs around doing wheelies and everybody was smoking weed. There was a theatre next to the meeting point and they hated people cycling onto the public area which they claimed was theirs. Of course we didn't care and they couldn't do anything.



There were several bikes with a trailer with speakers on it playing music. One person had a very tall bike which he had built himself, I am surprised that he never fell off it, and he had to hold on to something every time we stopped.

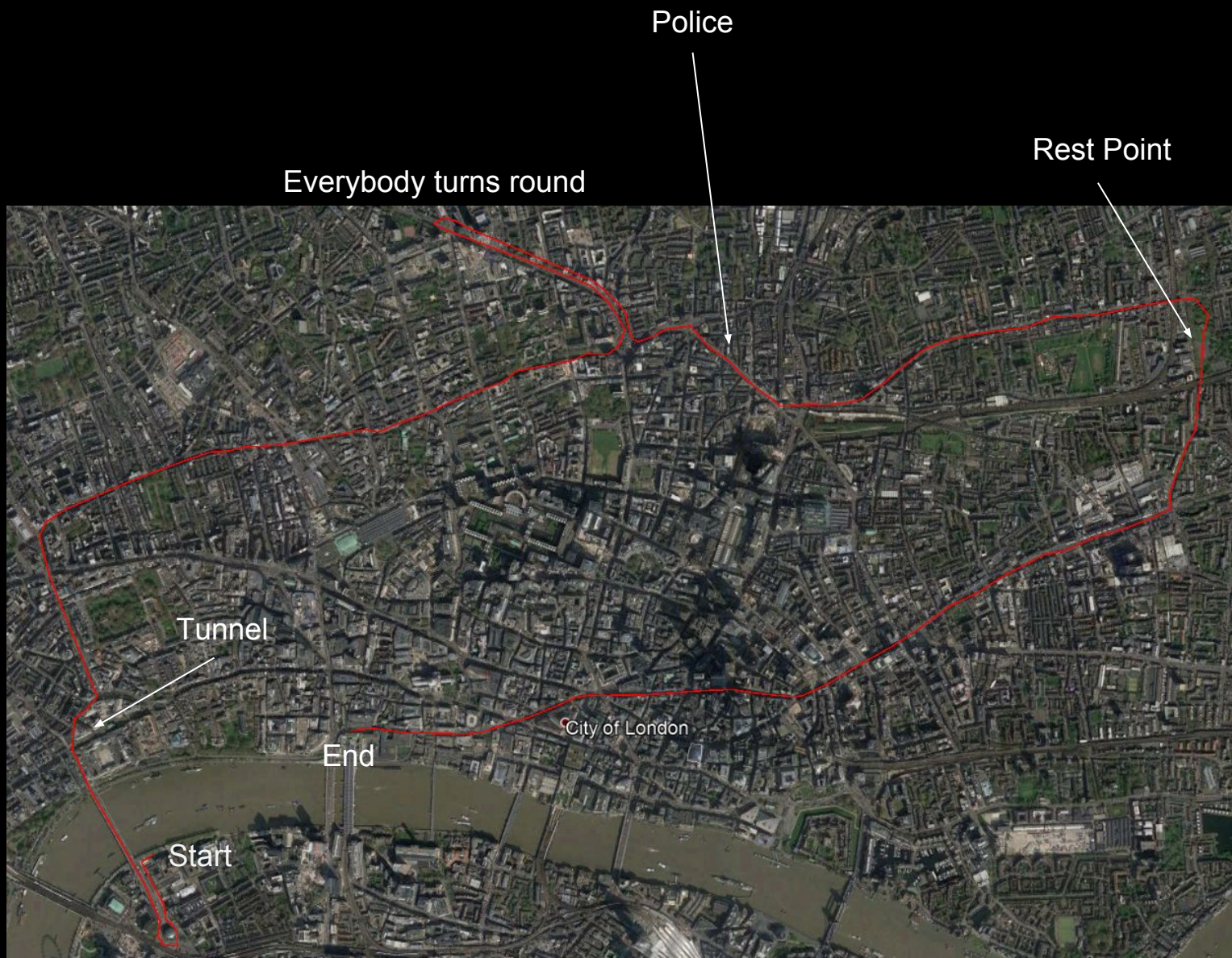


7:30 finally came along and we set off, going around the roundabout and along the bridge before going through the cars only Aldwych tunnel. Everyone liked that tunnel. Then we went through Holborn and cycled along for a bit until we got to Old street - Then we continued to angel but we didn't get half way before everyone decided to turn round. Back to old street we went and then we turned towards shoreditch. After turning left and right a bit a police van came out of nowhere and a whole load of police jumped out... Everyone at the front (including me) skidded round and pedalled the other way. Everyone else turned right after seeing what happened. Soon we got to Bethnal Green where we had the rest break.

There were about 250 bikes. We completely blocked the streets and no cars could move. London is normally filled with cars, and apart from the Boris bike ways, it is not very cycle friendly. I can't describe how satisfying it is to completely hog the road and stop all the cars.



After the rest break everyone was a bit more tired. We cycled on around london, down to whitechapel,



8.5 miles total - 3 hours (including the rest)

BIOHAZARD OF THE ~~WEEK~~ Century



This century the biohazard award goes to Ben's steering wheel. Years and years of staphylococcus has built up from his endless coughs and sneezes, and along with the countless layers of muck and grime, which I have totally not gone and wiped on his steering wheel as a prank! It is so mucky that even a nuke can't kill all the germs. This is the worst steering wheel you will ever see.



Runner up award also goes to Ben with his bicycle handlebars taking 2nd place. Although it doesn't look very grimy, years and years of dirt and bicycle grease have built up on the handlebars. The grey thing on the left used to be white when new. Now for the worst part. The grey thing used to reach the shiny metal thing on the right, but Ben has managed to use his stapholococcus to melt away the rubber. In its place is a sticky substance no other human will ever want to touch.

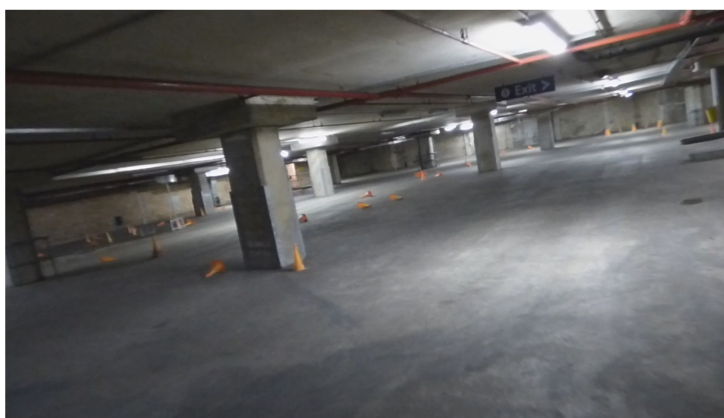


Here is a picture of my building after it was finished. As you can see I have hired the best architects in Slough to design my perfect building. I don't think my new building looks boring one bit. The 4 m/s ecodiscs whiz right to the roof level in only five seconds.

Unfortunately, I could not afford to add the extra floors that I wanted. This is because people keep blocking my youtube ads with their ad blockers, and that means I can't get enough money from my youtube channel to fund my awesome building. Oh well it has been built now



This is the main lobby. As you can see it needs a bit of a Hoover, however I am too busy with surfing ryanair planes to worry about hoovering.



This is one of the upper levels. I could not afford to decorate them because of my lack of funds from my youtube channel.



Here is the lift. Even though it doesn't look like one I promise this is a 4 m/s ecodisc.

Because I was so upset that I could not add all of the floors that I wanted I made my lift stop at every turn in the stairwell so it could stop at more floors. I could only afford for buttons and doors to be installed on the odd numbered floors though.

ccityplanner12's page



I have recently been to Avignon in France. Avignon has a bridge which has partially collapsed. It also has the Papal Palace, which has a futuristic ThyssenKrupp. There were several futuristic ThyssenKrupps. In the multi-storey car park there are some epic 1970s Kones (Kone weren't in the UK in the 1970s so these are the oldest Kones I have been in). In this car park a gang tried to rob me, but they failed as I can run fast. The station has a Schindler Eurolift with crap DMG logic. The underground car park has a generic lift which is extremely hot like a sauna.

In Nimes the buildings are all really short & I filmed just 1 Ecodisc. There was only one other lift, a cheap Otis hydraulic to a car park which I didn't bother to film. In Marseilles most of the lifts are either modernised or an Otis gen2. There is a metro with old rubber-tyred trains from the 70s. It hasn't changed at all. There are trams, which are modern Flexity Outlooks. The VF is very nice on the fast bits. A department store has futuristic ThyssenKrupps with round buttons. At the back of the department store there is a shopping centre, which at the other end has 1970s Schindlers (logic, motor & car interior are original, buttons are not). In the south of France on the TER there are loads of really dull Bombardier AGCs. These trains run similar to the Class 222s, only quieter. There also Coradia Polyvalents ("Polysilents"). However, there are also loads of really awesome old trains, such as slam-door compartment trains & trains with doors with buttons where you can open the door on both sides as the train doesn't have separate left/right door buttons.



Davenport have one of the shittiest HQs in the UK & I thought Dewhurst were bad...



It is located in Woodford, near the Central Line & not far from ILE's HQ in Highams Park. It consists of a garage cheaply converted into an office using masonry & glass bricks. If you send them a letter, it will go into a blue crate immediately above the shredder.

On the Eurostar, they are getting rid of their epic old Alstom trains & replacing them with Velaros. The interior of the Velaros is ugly & feels like it is falling apart because it is so shoddy.

I also went to Paignton & Torquay. The Crossways car park in Paignton has some epic 1960s/70s generics with Bull Motors Super Start. Torquay had a Keighley M-Series, but apart from that both places were dull.

I also went to Bristol. I did not have much time in Bristol, & didn't find any old lifts. Most of the lifts were generics.

I went to Didcot Railway Centre. This place has steam multiple units.

I went to Barking, Ilford, Romford & Upminster. The Jensen lift in Barking is still there, but the Easton lift in Upminster has been modernised.



WAFFAIN'S PAGES

Ahhh august the last month of summer vacation if you're reading this page half of this month have passed your probably going to do something fun in this month but your vacation is finished and you're not doing anything fun for the rest of this month. Oh how you wish you could surf a lift like beno but when your key you ordered online arrives summer break is done. In this section i will show you how to open lift doors without keys.

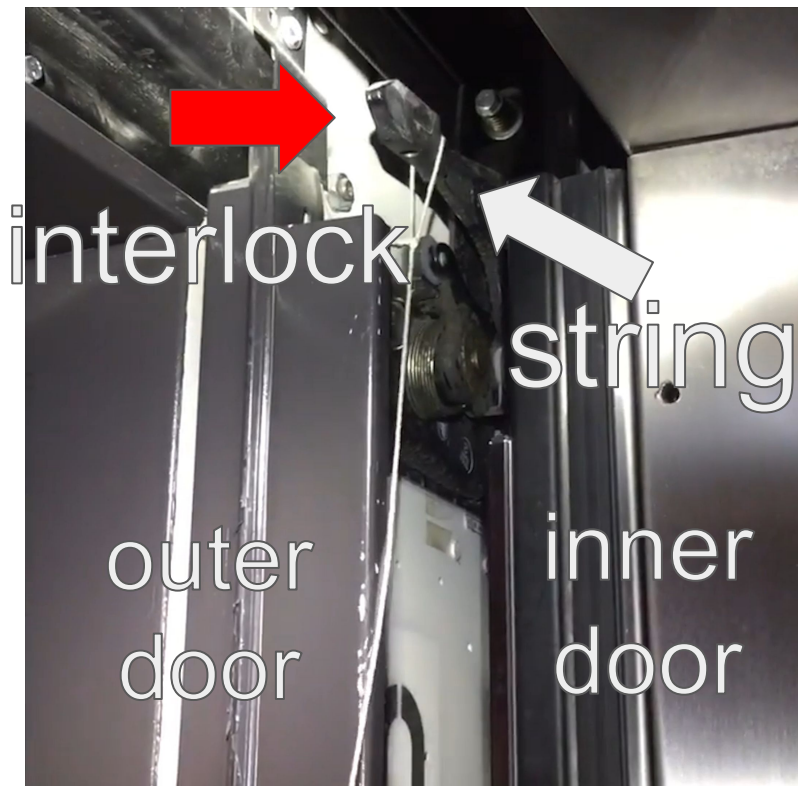
STRING METHOD

This method will work on old otis newer otis and gal doors. This method requires nothing more than a string you will need one at least 1.5m in length and strong enough to be pulled on and a loop will have to be tied on one end of the string(I used the bowline). This method is effective when the shaft doors does not have a keyhole or if you don't have a door release key

Older Otis

For older otis lifts

1. Call the lift to the floor you should be in a building with 3 or more floors and not on the lowest floor
2. Find the interlock on the outer door (the door on the outside) and place the loop around it as shown in the picture below



3. select the floor below you and get out of the lift. Make sure you are holding on the string and it is not in the way of the inner doors

4. wait until the lift goes down and pull down on the string and slide open the door while holding down on the string make sure the lift stops in between the floors and that the lift haven't arrived on the floor below you

If the lift still moves while the door is open it means the safety is not working properly and the lift is not safe to surf

Newer Otis

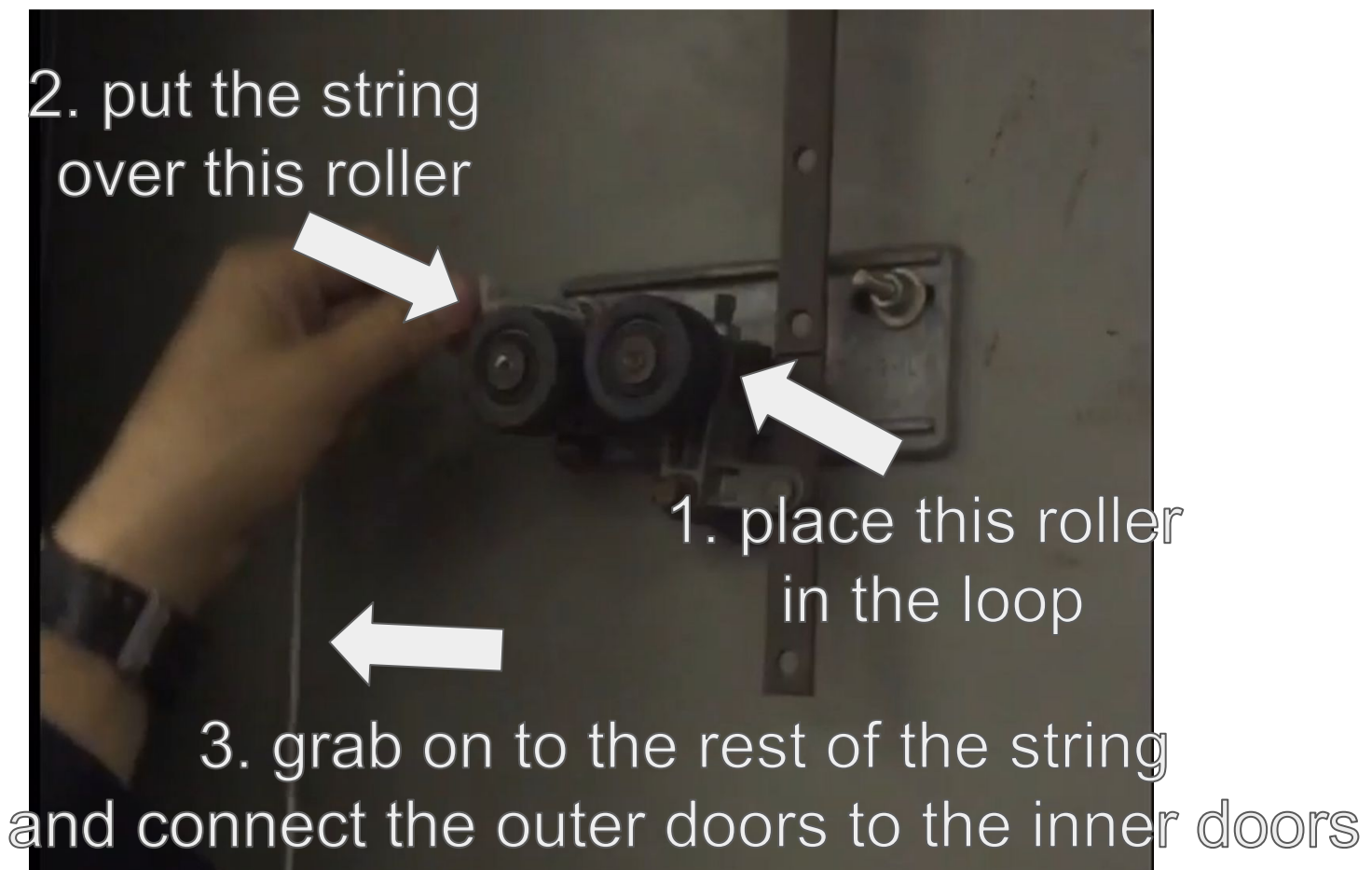
Pretty much the exact same steps as the page above but with a different looking mechanism there the interlock looks different but they work in the same fashion.



GAL

This is a bit harder on gal and it works for center opening doors

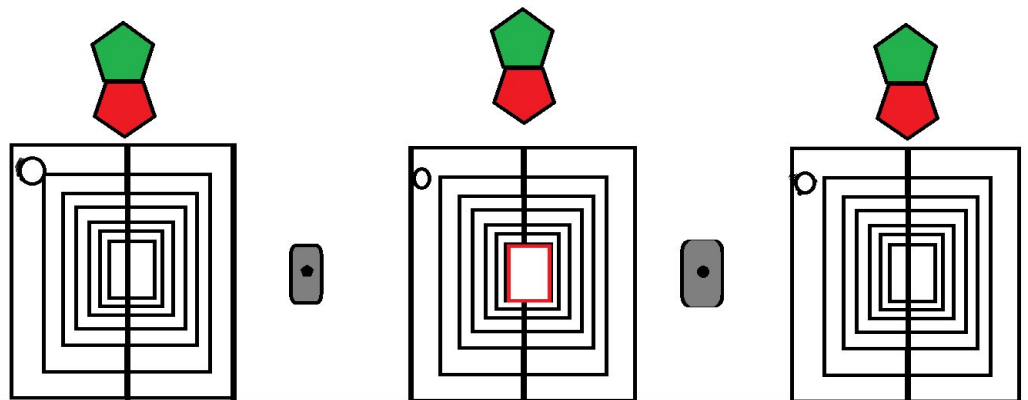
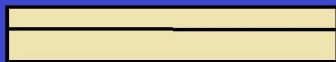
1. Call the lift to the floor you should be in a building with 3 or more floors and not on the lowest floor
2. Separate the outer doors from the inner doors this is done by pushing down the metal plate on the right plane of the door
3. Find the rollers (usually on the right door) Follow the instructions on the picture below



4. choose the floor below you and get out of the lift while holding on the string
5. Let the doors close and wait a moment until the lift is half way down then pull down and hold down on the string and slide open the doors

Josh's page

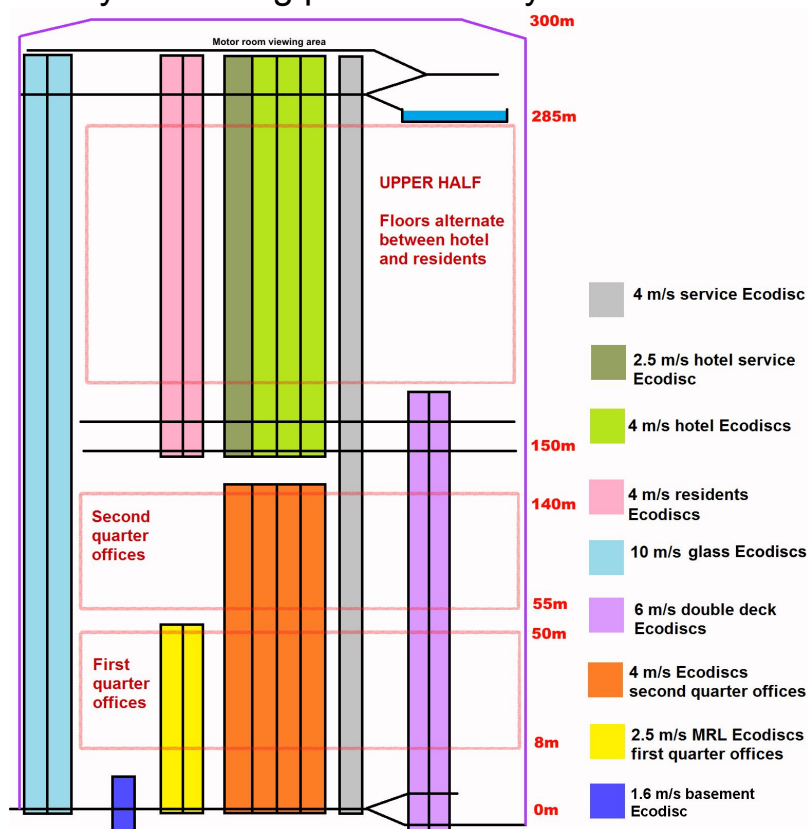
I rode a manually controlled otis lift due to be pulled down. One operator left the lift unattended. I rode it up and down until the operator came back. When the operator came back, He pounded on the lobby door so it echoed through the shaft and disturbed everybody in the 20 story building. A security person pounded on the top floor door creating even louder echoes through the shaft. I eventually escaped by opening the door on the second floor then bolting down some stairs and out a fire exit



BEN'S PAGES



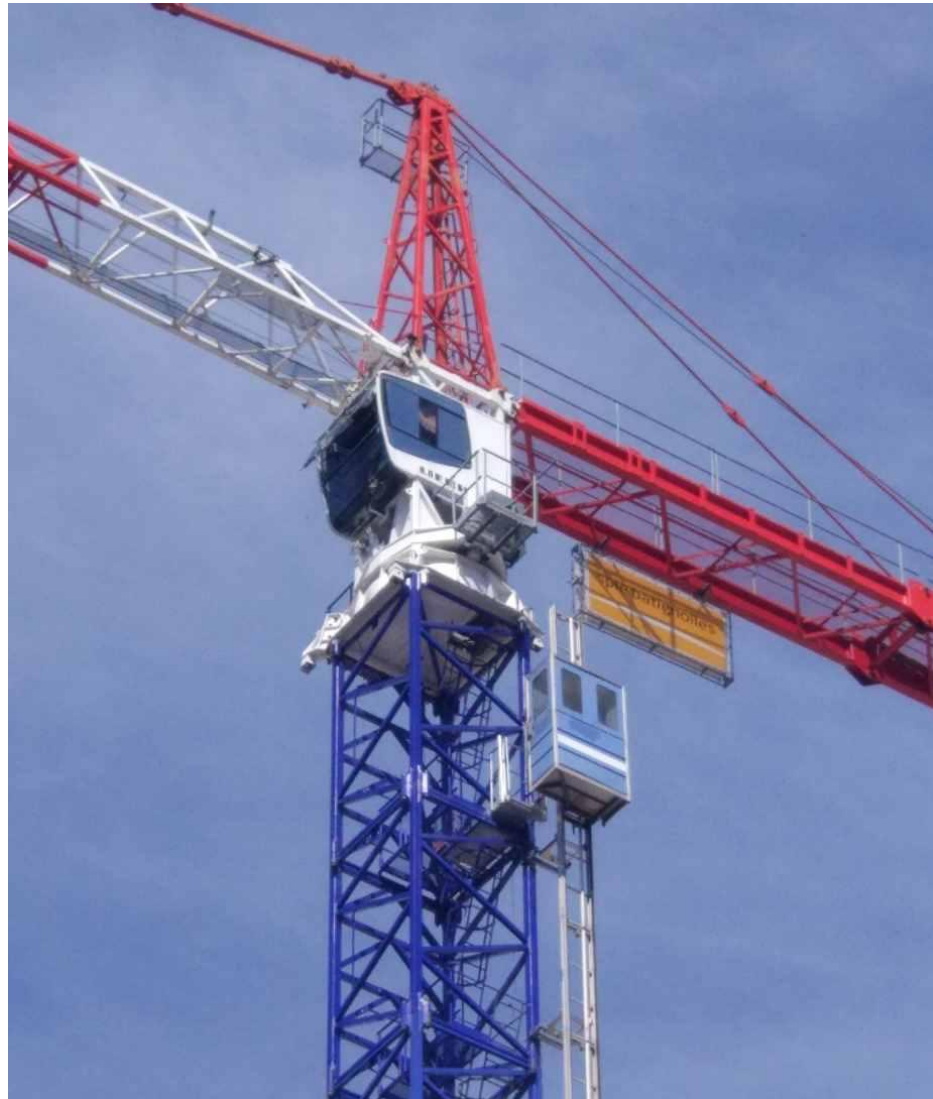
This month has gone well. The construction of my 300 meter skyscraper is now complete. I have installed the "BENO" sign at the top. Yesterday the Kone MX100 10 m/s Ecodisc motors were lifted into the motor room. My skyscraper has 18 lifts... Two 2.5 m/s Ecodiscs serving the first quarter. And four 4 m/s ecodiscs serving Ground to the second quarter (not stopping at the first quarter). Then there are two MX100 double deck 6 m/s Ecodiscs that go non stop from Ground to halfway up the tower. The upper car is for residents and the lower car is for the hotel. There are also a sets of four 4 m/s Ecodiscs to take people from the halfway level to the hotel levels (one is a service lift), and another set of two doing the same thing for the residents levels (the upper half of the building alternates between hotel and resident floors). As well as this there is one fire lift serving all floors, one lift to the basement store rooms, and best of all there are two glass MX100 10 m/s lifts that go non stop to the top floor where my luxury swimming pool is. If only this was all real rather than just in my imagination.



ADVENTURE IN PARIS

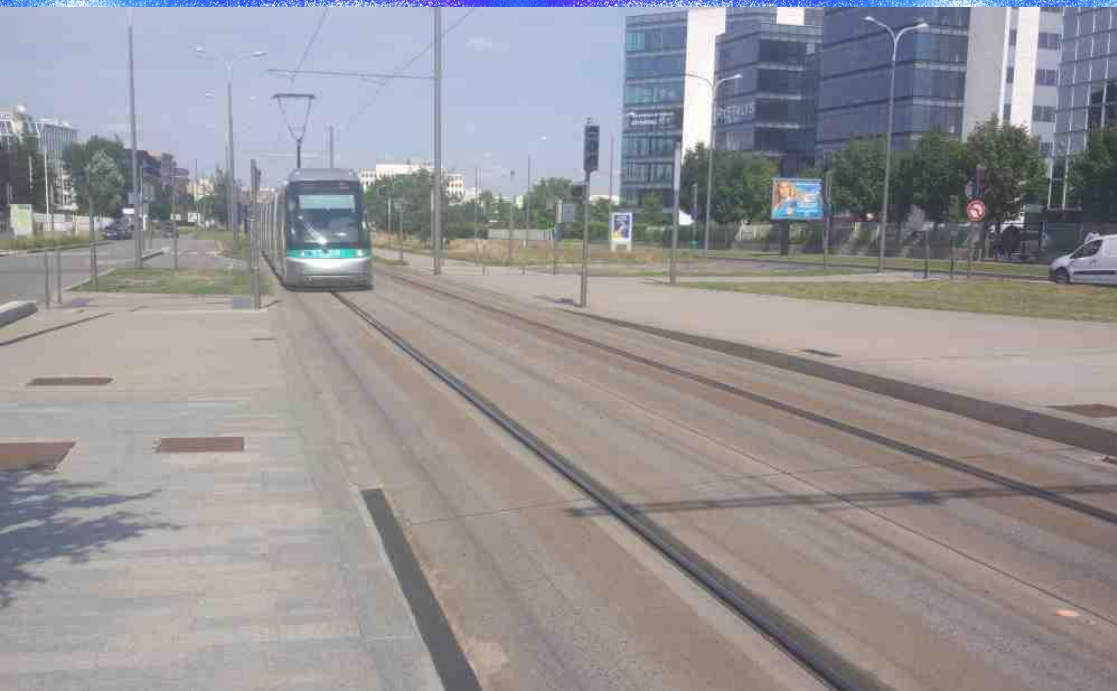
Here are some random things I saw on my expensive Eurostar adventure to Paris.

This crane has a climbing lift. How fucking lazy can you get. This has to be one of the most stupid things I have seen. Who thought it would be a good idea to go to all the effort to install a lift on a crane.



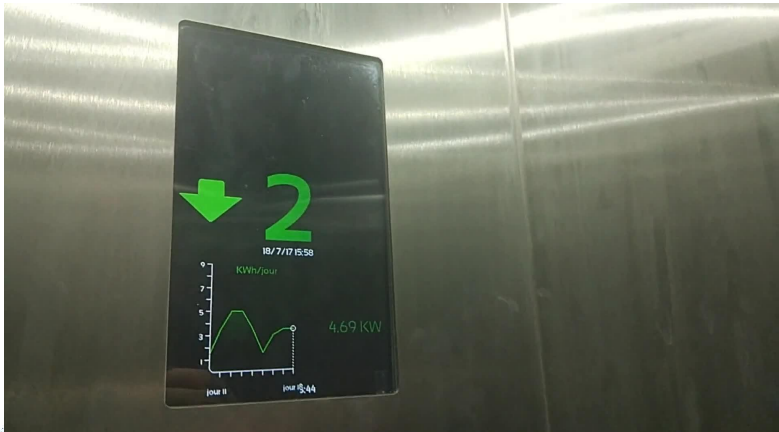
A very friendly Coypu comes over to everyone who passes by in one of Paris's parks. He is very tame and loves to eat carrots.





Paris has 2 separate Tram-bus systems. They are very weird. They have rubber wheels and a guide rail on the middle. The acceleration is very fast but the top speed is rather slow and they feel like they could go much faster.

Here is one of Paris's many talking traffic lights. When you press the button it tells you "Red pedestrian at (road name)". Then when it goes green it plays a chime. This is all good and disability friendly, but an awful lot of cars jump the lights and aggressively drive towards pedestrians in Paris, so these traffic lights don't exactly make it safe for a blind person to cross the road.





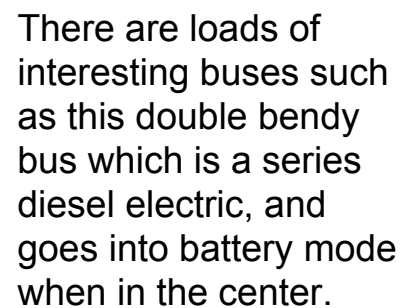
Here is a light up picture behind the beds at the hotel. This is the main light source for the room which is quite unusual.

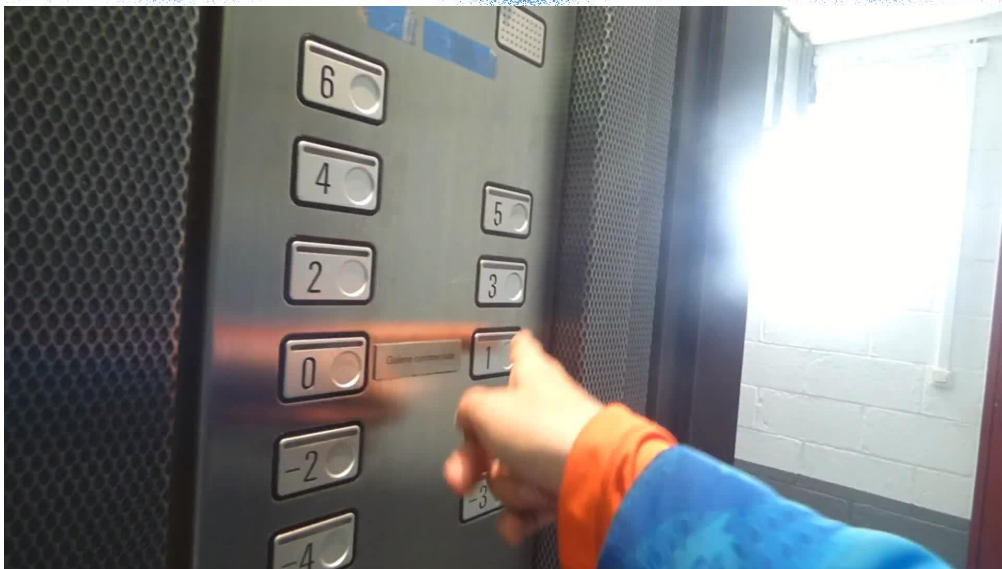
Over in Gallieni there are burnt out cars everywhere. What a nice part of Paris to visit. This was actually not far from the posh hotels.



Random camel casually walking along the road

CHEAP FLIGHT ADVENTURE TO **Luxembourg**





There are loads of epic lifts including a Schindler M series.

Here is an awesome old original lift. This lift is full of character and is exactly the sort of lift I wanted to see.



It has full speed inspection and original inspection control.

Interesting car lift which I managed to call with my key, but once inside the lift my key didn't work for going down to the car park.



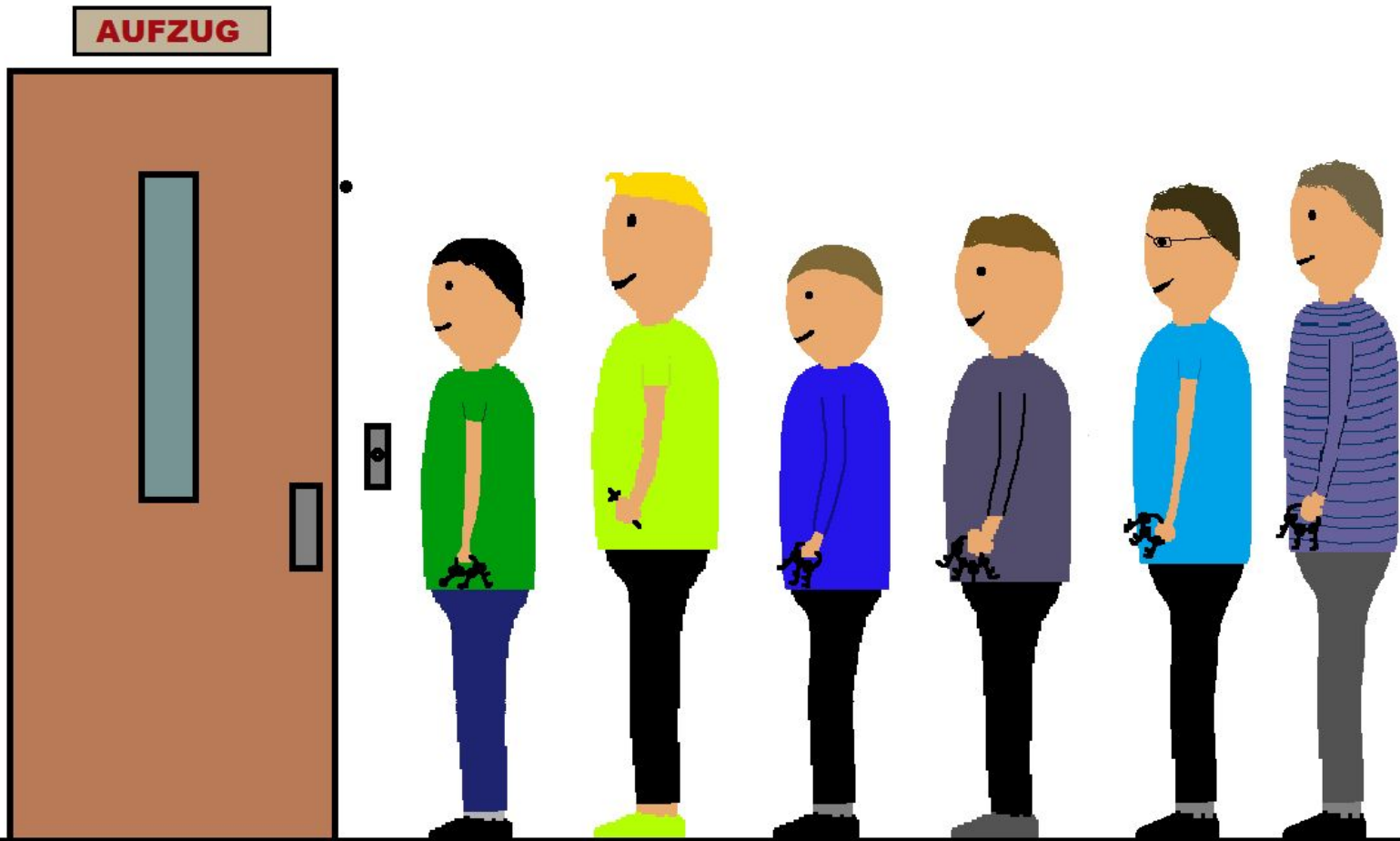
At the airport, the jet ways to the airplanes are made by ThyssenKrupp.



The controls for it look very interesting



GERMAN MEETUP



I went to Kaiserslautern in Germany to meet my German friends (Trizo, Nico, Chris, Elias and David) and I stayed at Trizo's house. We went in loads of awesome lifts and we all exchanged lift keys and lift buttons for our collections. I met David (TheHookedMetapod) who is an epic train surfer. I had a really great time in Germany.

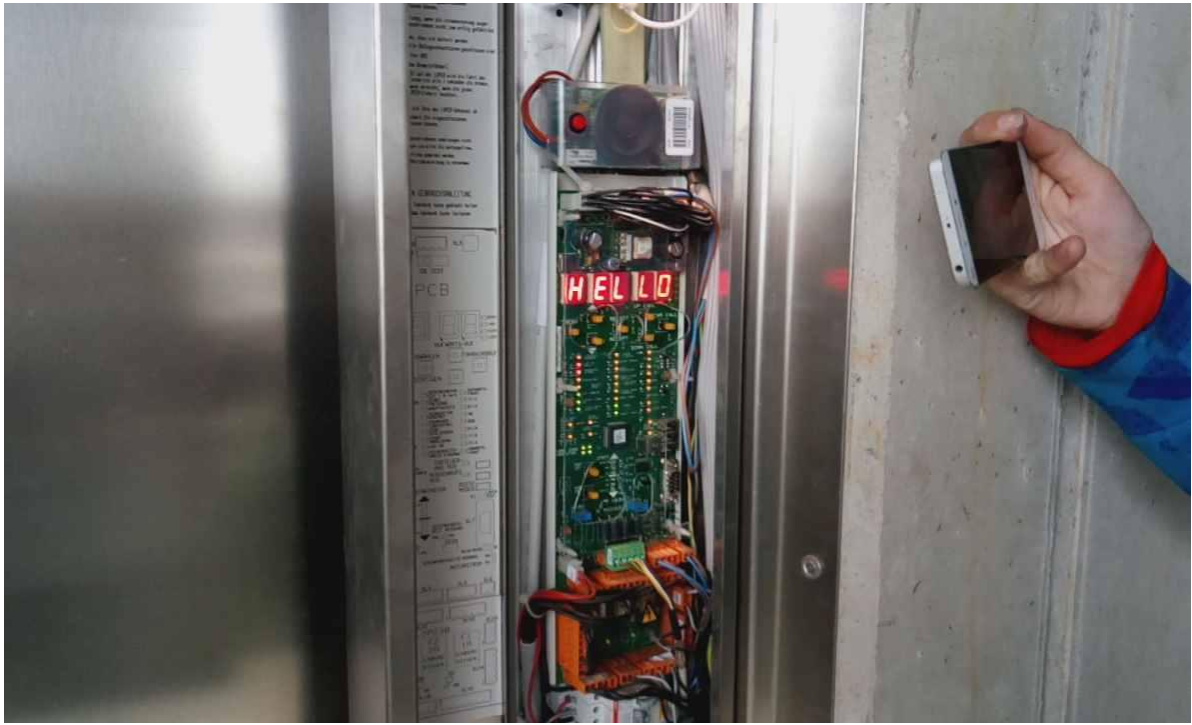
This is a tram signal in Karlsruhe. It has a lot of aspects. It seems to be showing 3 routes even though there were only two routes for the tram to go.



Nico and Trizo have a safety break fight in a lift!

Nico manages to safety break the lift despite Trizos best attempts to stop him.

Ecodiscs are always fun

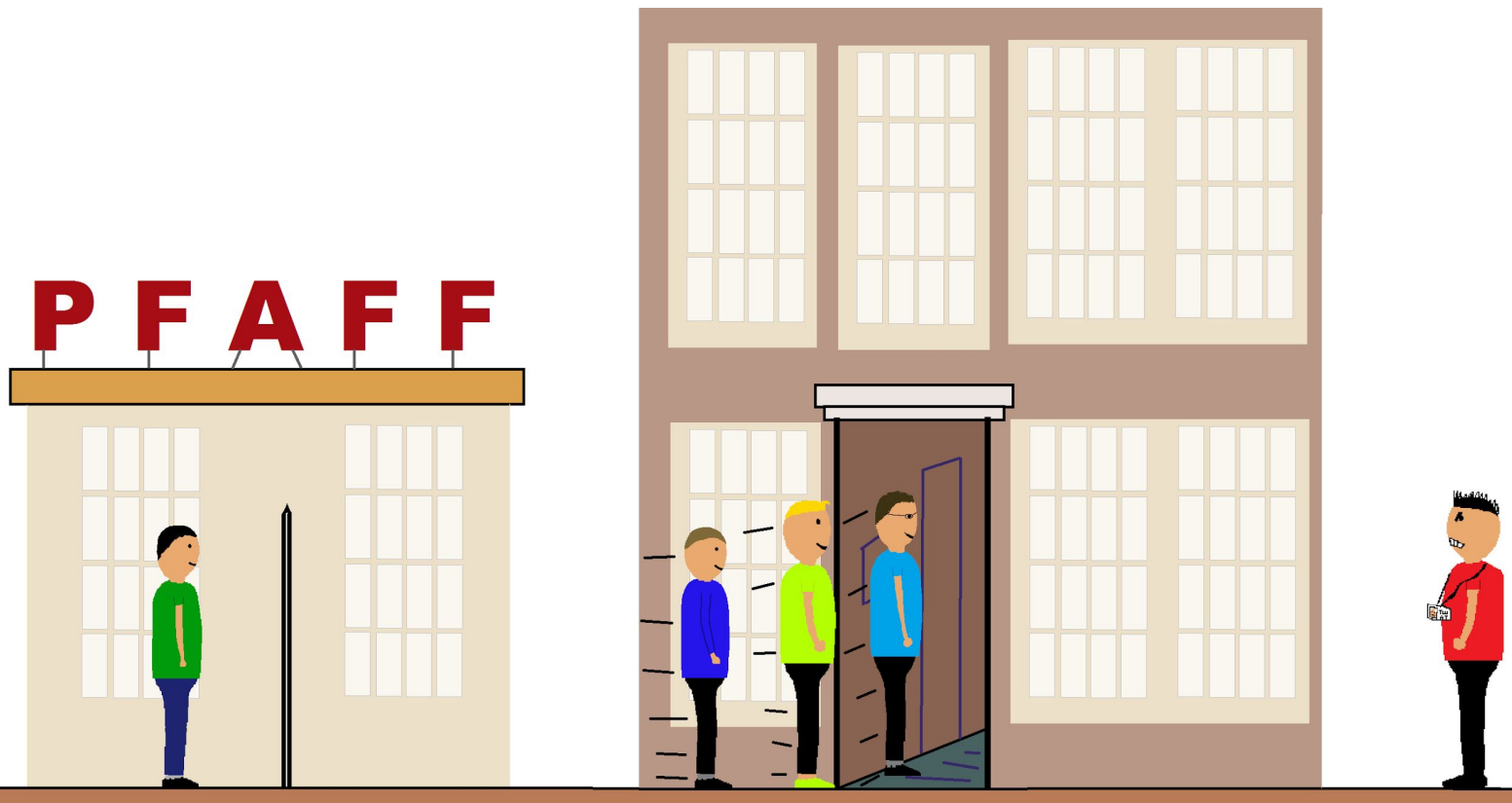


This Kleindienst Aufzuge was very interesting. The lift shaft is an extension to the building.

PFAFF URBEX



This is a massive factory in Kaiserslautern in Germany. Security regularly drive around in their car and often get out and go into the different buildings. This was an awesome risky URBEX



There are quite a few lifts here



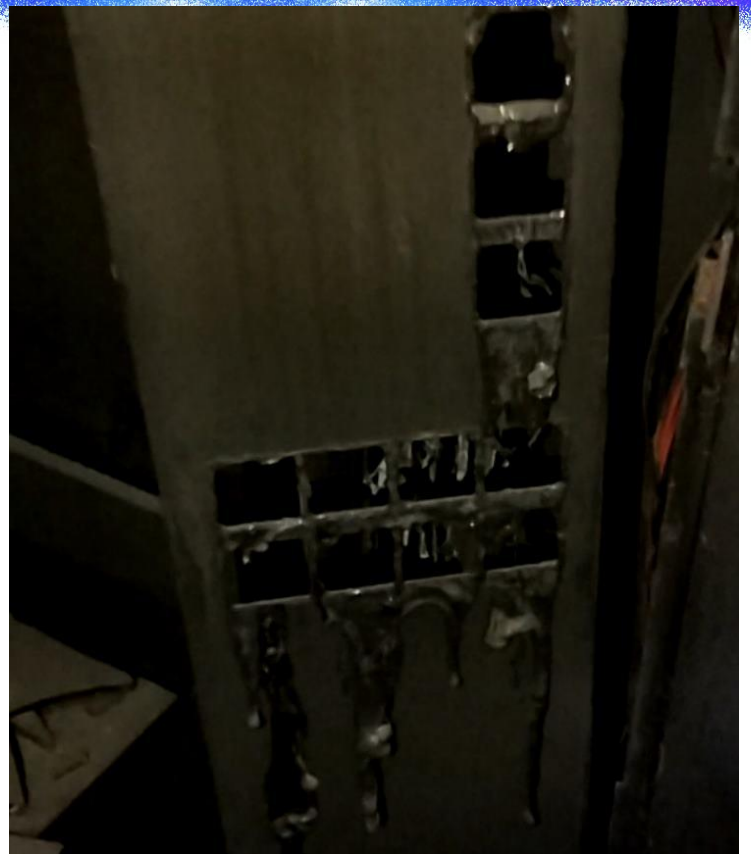
Here is a goods lift that has not been used for a very long time.



I really like the old industrial look to all the buildings. There are creepy long passages between the buildings. Security could come around the corner at any moment.



Some parts have been set on fire. This is what 90s french style Thyssen buttons look like after why have been burnt.



This site is very big. It is all abandoned. There is so much to look around.

Awesome old lift that is sadly in very bad condition.





Looking up the shaft of the old lift. A lot of the glass panels have been smashed by various people.

On top the lift it has wheels which is unusual for a lift like this.

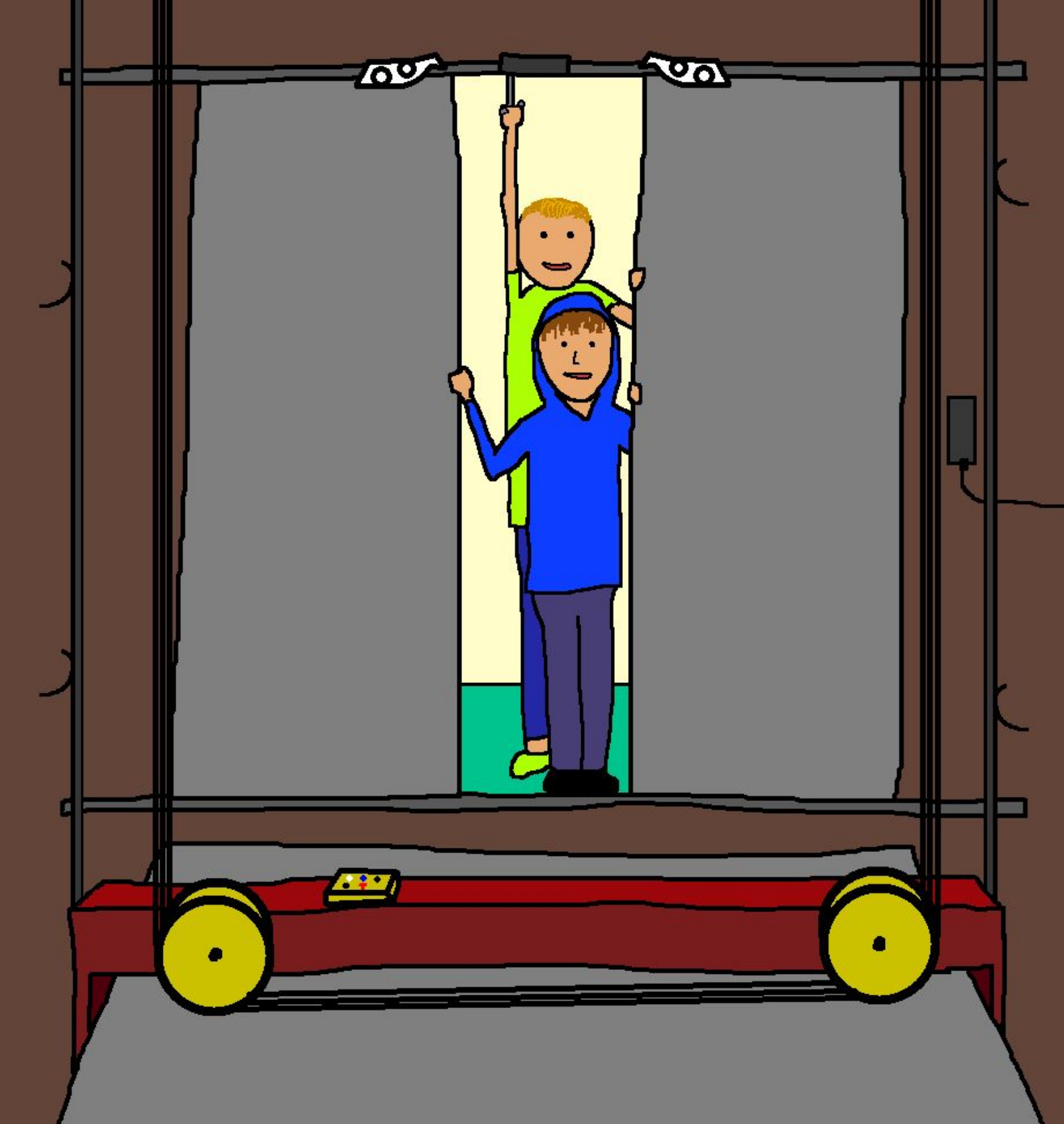
There is a weird overrun which that pulls a cord attached to the main fuse to the lift. Such a weird way to disable the lift if it overruns.



The mechanical position system is very interesting.

These mechanical systems can be complex and are very unique to each lift manufacture.





THE END