## Candidate 1

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2. a) changes in society have influenced the evolution of coffee machines as the drink is now an enjoyable drink. The first coffee maker was the 1915 Sirex vacuum brewer which made a bitter and burnt tasting coffee. in the early 1910's - 1930's it you wanted a nice cop of coffee you had to be upper class and go to fancy hotels. As society changed so did the technology. We became a consumerist society so coffee machines were made to make coffee quickly. The 1972 Mr. coffee machine was the first machine of it's kind and allowed homes and offices to make their own coffee. Then in 1992 nespresso released their first machine and introduced coffee pods, this was very popular in the Throw away society as these single use coffee pods were convient and produced a great drink. In todays more sustainable

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society we have invented eco friendly decomposable and reusable coffee pods to go in our machines.

26) The 1915 silex vacuum brewer made coffee using heat + pressure.
in 1948, archillies gaggia invented a new machine which used steam which was a key change as it altered the flavours of the espesso as the werent being burnt.
Then in 1972 when electricity was introduced the Mr coffee machine was very popular in homes and offices as it was a quick and easy way to get coffee in a consumerism society. However over 600,000 Mr. coffee machines were recalled as a steam leak caused coffee and hotwater to explode onto customers and with over 164 reports of this and 64 injures including burns the product was recalled
The 1992 nespresso pods were also a key change as this allowed coffee to be portioned and ready for immediate use in diffent blends of espresso.
This was a big soccess for nespresso

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and can still be seen in to days society as many of us use nespresso machines and pods in our homes and offices everyday.

2c) The Brand mr. coffee really helped to the evolution of coffee machines as the introduced electricity into our machines and allowed us to access a cup of coffee from our homes and offices.

The Mr coffee drip brewer was one of the brands first sucesses as it used steam to heat the water and espresso in a heat chamber as the the coffee would drip into the pot below the machine, ready to drink.

This was something never done before and was very popular. Almost every home and office had a mr. coffee machine.

Mr. Coffee's machine lead to lots of new eletric machines designed for counter tops and was the start of modern eletric machines.

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3 a) a clear brief and specification is important as it allows the designer to know exactly what the customer is looking for as an open brief would give the designer freedom.
the air pocket is a product used to convert dangerous gas therefore its important the brief and specification are clear so the product performs for its intend purpose

a clear brief also allows 2 designers to work apart as well as together as they know exactly what the product should do and look like.

3b) one issue that may have influenced the choice of material is the gases The gases of the air pocket is in contact with are poisonus and harmful there for the materials need to be corrosion resistand and with stand the harsh chemicles.
The air poched will be thrown alot therefore the material has to be durable so it doesnt break when it lands, this could be an issue as heavy materials may crack or be too heavy

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The air pocket will also have to ~~with~~ withstand high temperatures which could be an issue as many plastics and metals have lower melting points.

a final issue when choosing materials would be weight, if the material is too heavy it may be challanging to throw so the product needs to be light weight.

3c) one marketing technique celebrity endorsement. This is when celebritys promote a product and the familiar face draws the costomess in. This is a suitable technique as if the fire brigade or goverment made an announcement promoting this product it would be trusted.

posters and flyers would also be a good way to advertise and promote this product as it would allow for a wide range of fire professionals to see this product and promote it in schools.

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4a) analytic thinking is a good idea generation technique for this product as it allows for crossover of a varity of ideas and new ones to be generated however this can have its drawbacks as there can be over 4000 ideas if you do a 9x9 graph and thats impractical another idea generation technique is brainstorming this is a good technique as you can work in a group or individually and allows for lots of ideas quickly however it can have its drawbacks as its not always easy to just generate ideas on the spot and some ideas may not fit the breif or be practicle.

b) injection moulding is a suitable technique for the mono fin as it allows the polypropyne thermoplastic to create a solid shape and due to its lack of detail its a good technique for manufacturing in mass two-shot injection moulding is suitable for the monofin as the product is made up of 2 different plastic

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types and allows them to join in the design without mixing

c) safety of the monofin could be assured by checking that the hinges dont fold up when in use and that the clip is ~~una~~ staying in place when on your feet. This can be done by ~~proto~~ testing the product. many tests can assure safty such as durability test to make sure the product doesnt wear down and flame tests can check and ensure the product isnt flameable.

5) market pull may have led to the basketball shoe as many basketball Players are wearing through their shoes quicky and costantly buying newer ones as their old ones are thrown out
market pull may have also led to the basketball shoe as the constant throwing away of old shoes is unsustainable and players are looking for a more sustainable option

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technology. push may have led to the shoe as 3D printing is a new and sustainable way to design as plastics can be recycled. This allows for the user to recycle if they wish

The technology used for the shoe to be customisable and have a longer life span creates the ability for players to have longer lasting, durable shoes which is sustainable unlike the plastic rubber shoes on the market that contribute to the throw away society.

b) 3D printing allows for changes to the design to be made before it's physically made which is more sustainable

3D printing allows for testing to be done before the products made, again saving materials

3D printing allows for the outes shoe to be durable and flexible as the material used to print is strong yet able to bend

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3D printing also allows for the product to be worked on from anywhere remotely therefore changes can be made easily.

c) one issue that may delay a product commming to market is manufactring. if not all the product is manufactured and quality assured by the time launch day arrives then there is not enough stock to realease.

another issue is marketing if the product is about to launch and the marketing team havent advertised enough no one is going to know about the product.

finally testing + quality assurance, if once the product is made its then quaily assured to be faulty then the launch date has to get pushed back

d) The target market is niche and may not be interested in the product. due to the fact they already have it and dont need a new product.

3D printing shoes is a new technology and may not work practically for

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the user.

manufactures may not have experience to create mass of a 3D printed shoe and this may cause time delays as 3D printing can take a while.

They may overcome this by hireing a sub contractor who specialises in 3D printing for the base of the shoe.

designers may not get the design of the shoe correct for basketball players as they are a niche target market and larger than many of us, they may overcome design for the 95% ile by working with a basketball player or team to get the design right.

6 a) physiology would have been considered when choosing materials as the metal is durable yet familiar therefore easy to interact with and not too heavy or complicated

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psychology will have influenced the design as its curved shape is welcoming and aesthetic, yet practical for a bike. This allows it too look good in a home when not in use but welcoming and praticle when used as a bike

Bychology will have also been influenced by the colours, the white of the pedals is aesthetic, clean and pleasing yet also clearly defines an area of the bike thats practicle and moves

Physiology will have influenced the design as the curve of the front is ergonomically the correct size for its intended purpose and allows for ease of use.

b) conflict about aesthetics may have arisen due to its hollow frame and main white ~~pedals~~ pedals an seat

it looks very clean and minimalist but is it practical for performance due to the hollow frame maybe

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not capable of holding the weight of the user.

The ergonomics may have caused conflict due to the intended size of the seat and diametre of the curve to be practiele for performance when pedalling yet if too curved or the seat too big it may not look as aesthetic for some purposes.

The performance may have caused conflict as the bike looks very minimal and clean with small pedals and seat is it actually practical to sit on and pedal. due to aesthetics of the bike when not in use, this may have caused conflict when the bike is in use.

c) one feature designers need to consider is split lines, where are the split lines going to be once the product is assembled? designers can design in where split lines will be to make sure they arent in the way or seen.

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designers also have to consider injection and ejection points. These points can also be designed into the final product to make sure they ~~arrent~~ arent seen.

designers need to consider wall thickness to ensure the design can safely be removed from its mould. They can design in where will be thicker than other areas to ensure stability in the product.