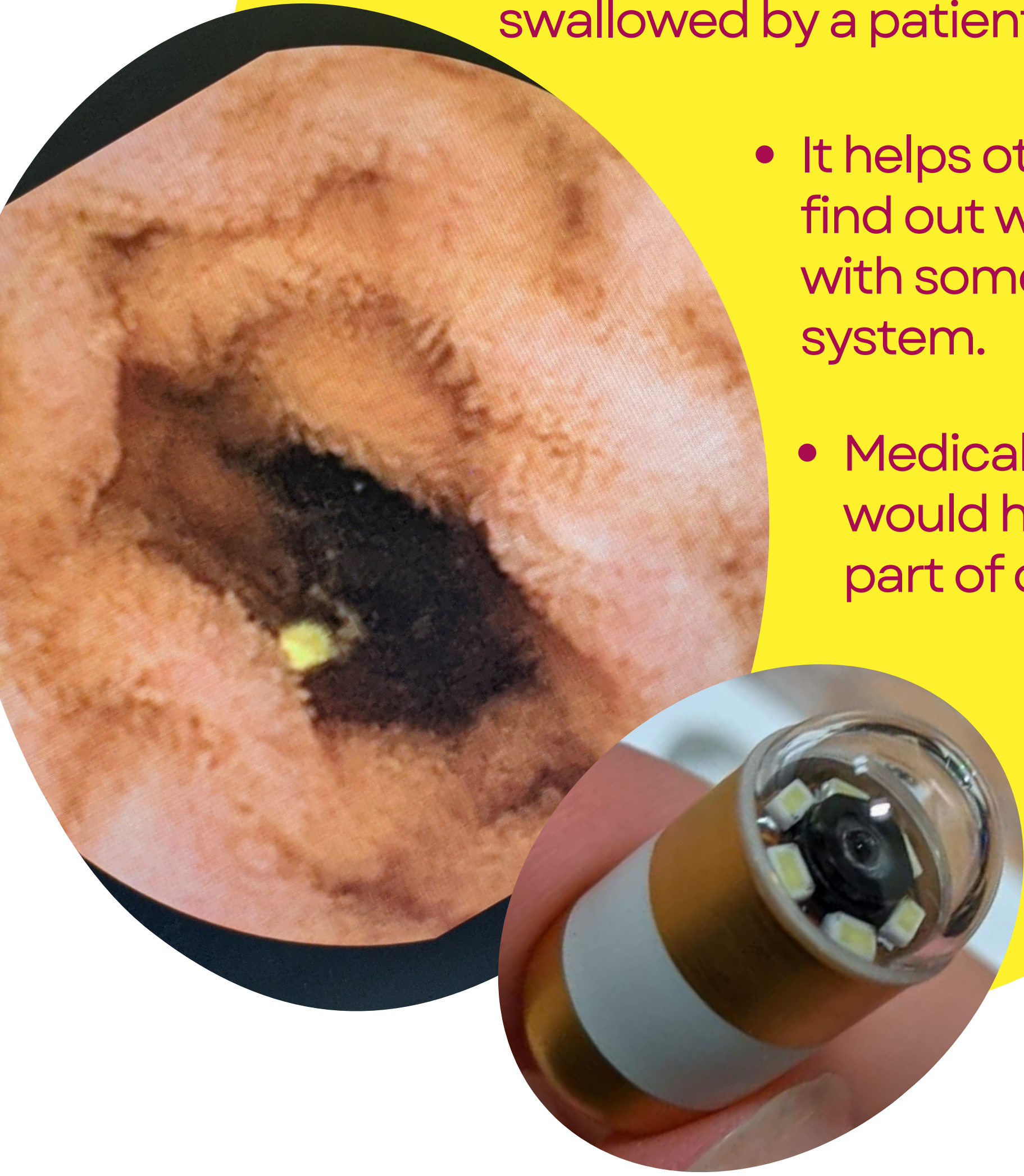


Things I do as a: Clinical Engineer

I watched the inside of someone's intestines with a tiny Wifi camera!

- It's a little bit bigger than a paracetamol capsule and has to be swallowed by a patient!
- It helps others in the NHS find out what is wrong with someone's digestive system.
- Medical Engineers would have been a big part of designing this.



I designed and 3D printed a device to check x-ray machines are working!

- Special machines at cancer centres use x-rays to treat cancer.
- X-rays can help kill cancer in someone's body, but can harm their healthy body parts too!
- This means that we have lots of test devices for x-ray machines, to check they are:
 - sending the right amount of x-rays,
 - to the right body part and
 - showing us the right images of patients.
- My device pretends to be the chest and a lung, so I had to also code motors to move like breathing.



I wrote some code to help check the lab that measures how people walk!

- This lab is called a gait lab.
- It has lots of cameras looking at silver balls stuck on someone's skin.
- They tell the computer how someone is moving.
- This information helps decide if surgery or orthotics can help them walk better!



- It's an important decision, so we must check that the equipment is calibrated every day!

I fixed someone's eye tracking communication aid so he can talk to me about Formula 1!

- If someone cannot speak there are lots of devices to help them.
- They are part of a group called assistive technology which helps people do activities they can't do otherwise.
- Infrared cameras can see where your eye is looking on a computer so you can select the words you want to say!



I measured the power of all the devices in an operating theatre so that the surgery robot can work!

- Robots that are controlled by surgeons help with very detailed surgery.
- But they are big, powerful machines!
- Operating theatres have lots of other machines too that help with operations, like to check heart rate, or give pain medicine.
- Lots of operating theatres were built before the surgery robot was invented.
- We need to check it has the right electricity supply to keep everything working during operations!

