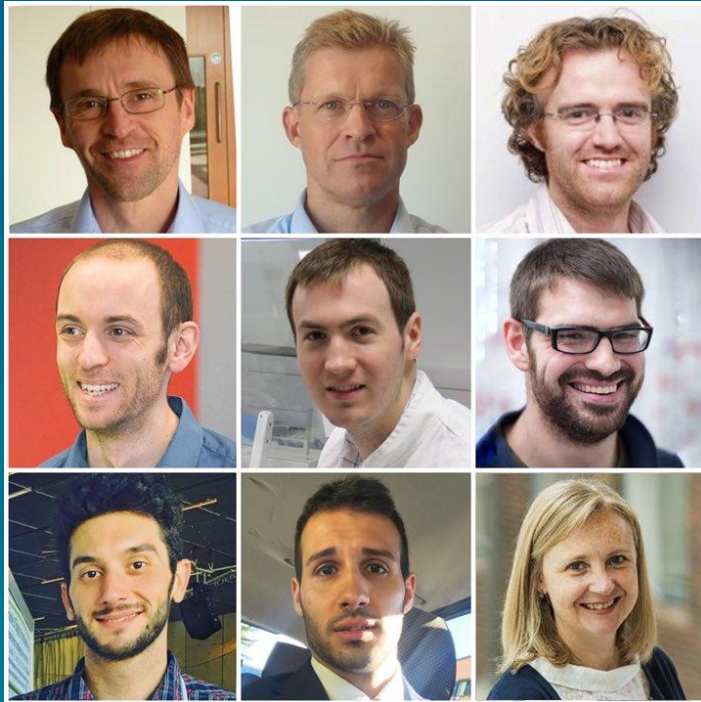


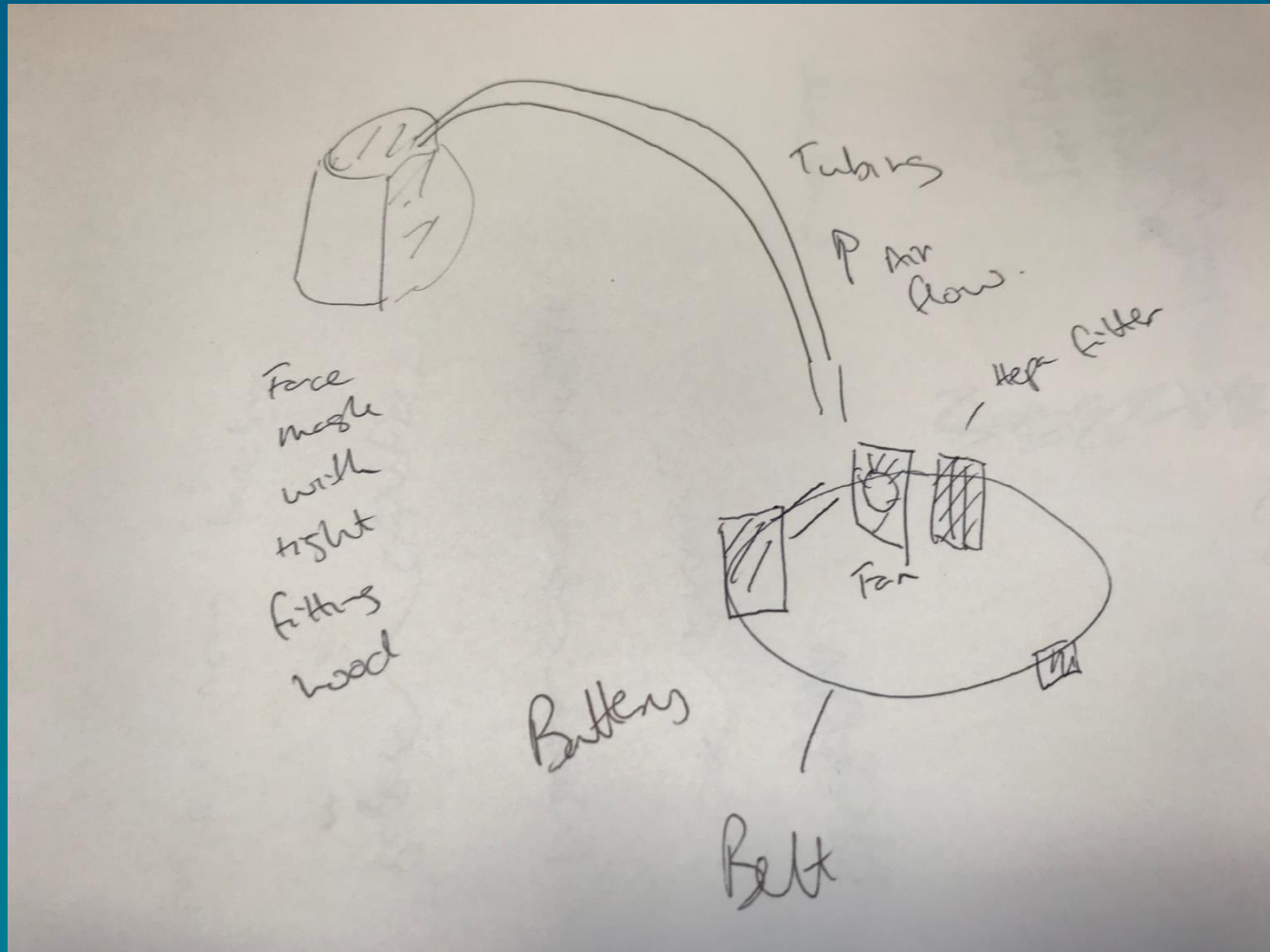
The Personal Respirator Southampton (PeRSo) Project



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Alex Dickinson, Dan Spencer, Ric Gillams,
Antonio de Grazia, Sebastian Rosini, and Alex Mant

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The origins: urgent clinical need



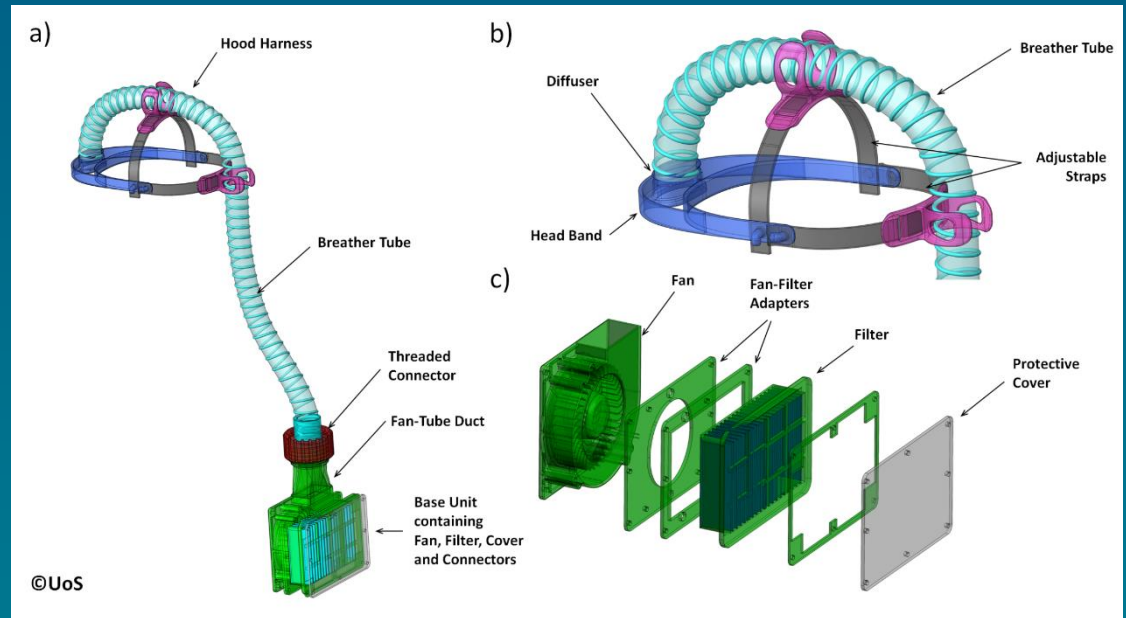
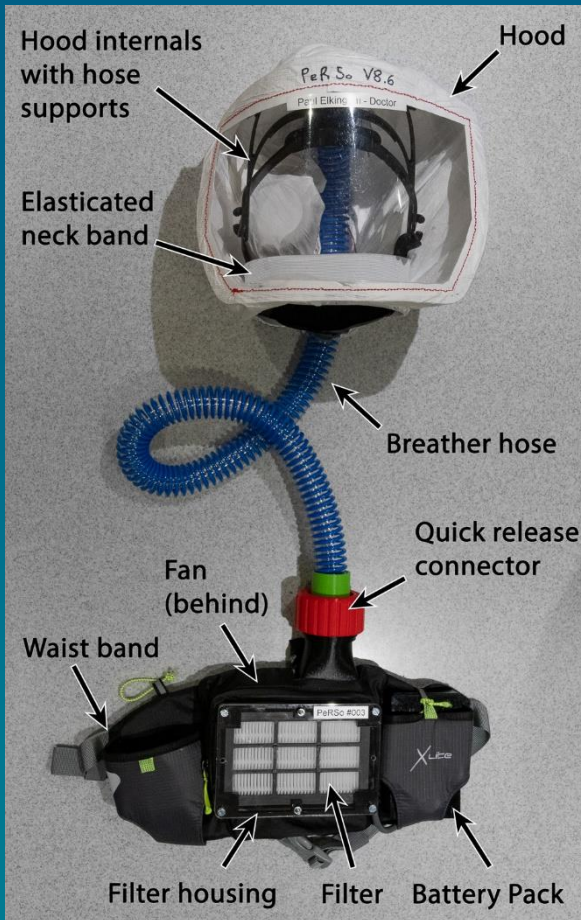
In house design and production of respirators



3D printed connectors



Early PeRSo prototype



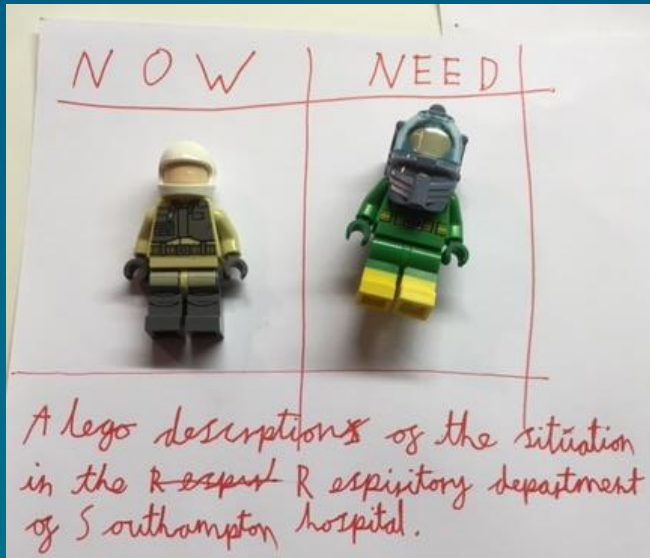
Evaluation on the wards



Summary of feedback

- Preferred by patients
 - Better communication
 - Can see smiles and staff can show empathy
- Preferred by staff
 - More comfortable and less claustrophobic
 - Better protection as very effectively filtered air
 - More efficient as not constantly changing PPE
 - Noise and storage are main limiting issues
- Better for NHS and environment
 - Secure supply of PPE for the pandemic
 - Cheaper than disposable FFP3 within ~ 6 weeks
 - Less waste as reusable

Scramble to secure production



Dear Dr Mant,

This is to confirm that your order has now been processed. We'll be in touch again before your delivery to confirm it's on its way.

John Lewis & Partners Replacement Filters for Models 12N, £2,700.00
Pack of 2

Product code: 85667204

Qty: 270

Sweatshop
28-29 Hanover Building
Southampton, Hampshire
SO14 1JU

SALE

76518603000 Karrimor X Duo Bt Be 12.99
76518603000 Karrimor X Duo Bt Be 12.99

| | | Cardholder | DR PAUL ELKINGTON | |
|---------------------|--------------|----------------------------------|-------------------|--|
| Date of transaction | Date entered | Description | Amount £ | |
| | | BALANCE FROM PREVIOUS STATEMENT | 145.95 | |
| | | DIRECT DEBIT PAYMENT - THANK YOU | 145.95 CR | |
| 09 APRIL | 09 APRIL | | | |
| 13 MARCH | 16 MARCH | TESCO PFS 5862 WINCHESTER GB | 1.15 | |
| 18 MARCH | 19 MARCH | CRAIGMOREONLINE LTD PORTADOWN GB | 10,722.99 | |
| 07 APRIL | 10 APRIL | CRAIGMOREONLINE LTD PORTADOWN GB | 10,680.00 CR | |
| 09 APRIL | 10 APRIL | MARKS&SPENCER PLC SOUTHAMPTON GB | 3.70 | |

| Line | Order Code / Description | Unit | Quantity | List Price | Net Price | VAT Rate | Amount |
|---------------------------------|---|------|----------|------------|-----------|----------|---------|
| 1 | 1568499 PMB1212PLB2-A.(2).GN BLOWER, 120X120X32MM, 12VDC | EA | 546 | 13.9300 | 11.5619 | 20.00 | 6312.80 |
| ORDER PLACED BY MR HYWEL MORGAN | | | | | | | |

Implementation challenges



Cleaning



First mass production PeRSo



PeRSo 3.0 BSI and HSE
approved



Lecture theatre 2

<https://www.baynhams.com/covid-19>

Where next for the PeRSo project?

- Refine optimal deployment and use
- Lobby for wider availability in the NHS
- Increase UK manufacturing capacity
- Developing the PeRSo-Mini for care homes
 - protect residents and staff
 - allow visits
- Assist overseas partners

Bangladesh PeRSo

