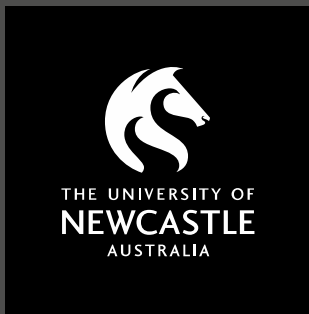


IMMERSIVE TECHNOLOGY THE JOURNEY WITH VIRTUAL AND AUGMENTED REALITY 2018



NeW Futures Education show case | November 22nd 2018

Dr Donovan Jones, Shanna Fealy and Dr Sam Evans | Project Leads/Academics, University of Newcastle

THE EDUCATIONAL LANDSCAPE

Education in the Age of Digital Disruption

What You Can Learn from Universities'

Digital disruption: reinventing the classroom

It's 'do or die' for universities in this new technological age, says Linda Price

Posted by Stephanie Broad | October 21, 2016 | Higher education

#LINDA-PRICE #KINGSTON-UNIVERSITY #TECHNOLOGY #TEACHING

processes
immutable
presenting
quality of
expect.

classroom and the campus. Digital natives are entering university with greater digital expectations – they want high performing technology in their educational and administrative experience which reflects the connectivity that they experience in their daily personal lives.

The kinds of new technologies emerging have the potential to transform the student learning experience. Universities will have to adapt and become more responsive to these types of technology in order to continue to attract and retain students.

e
1





	Actual	0 Points	1 Point	2 Points	Total	
Activity	Absent	Absent	Arms and legs flexed	Active movement	0	i
Pulse	80 bpm	Absent	Below 100 bpm	Over 100 bpm	1	🔄
Grinece (reflex irritability)	Flaccid	Flaccid	Some flexion of extremities	Hyper-reflexia (sneezes, cough, spit)	0	🔄
Appearance (skin colour)	Pale	Blue, Pale	Body pink, extremities blue	Completely pink	0	✅
Respiration	Irregular	Absent	Slow, irregular	Vigorous cry	1	
			Submit	Total	2	



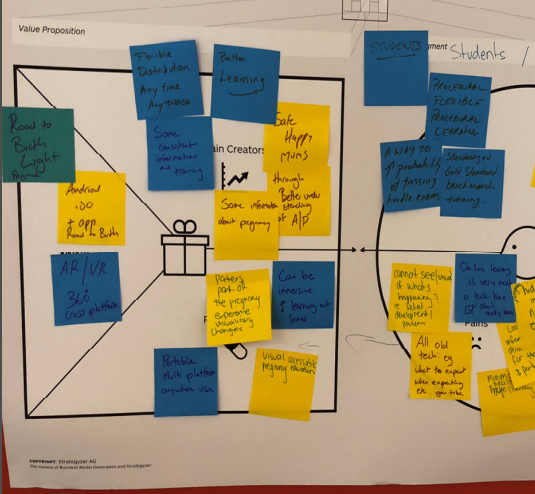
AND CONFLICT RESOLUTION COMING SOON TO VR NEAR YOU

TECHNOLOGY AND INNOVATION LANDSCAPE IDEAS THAT IMPACT



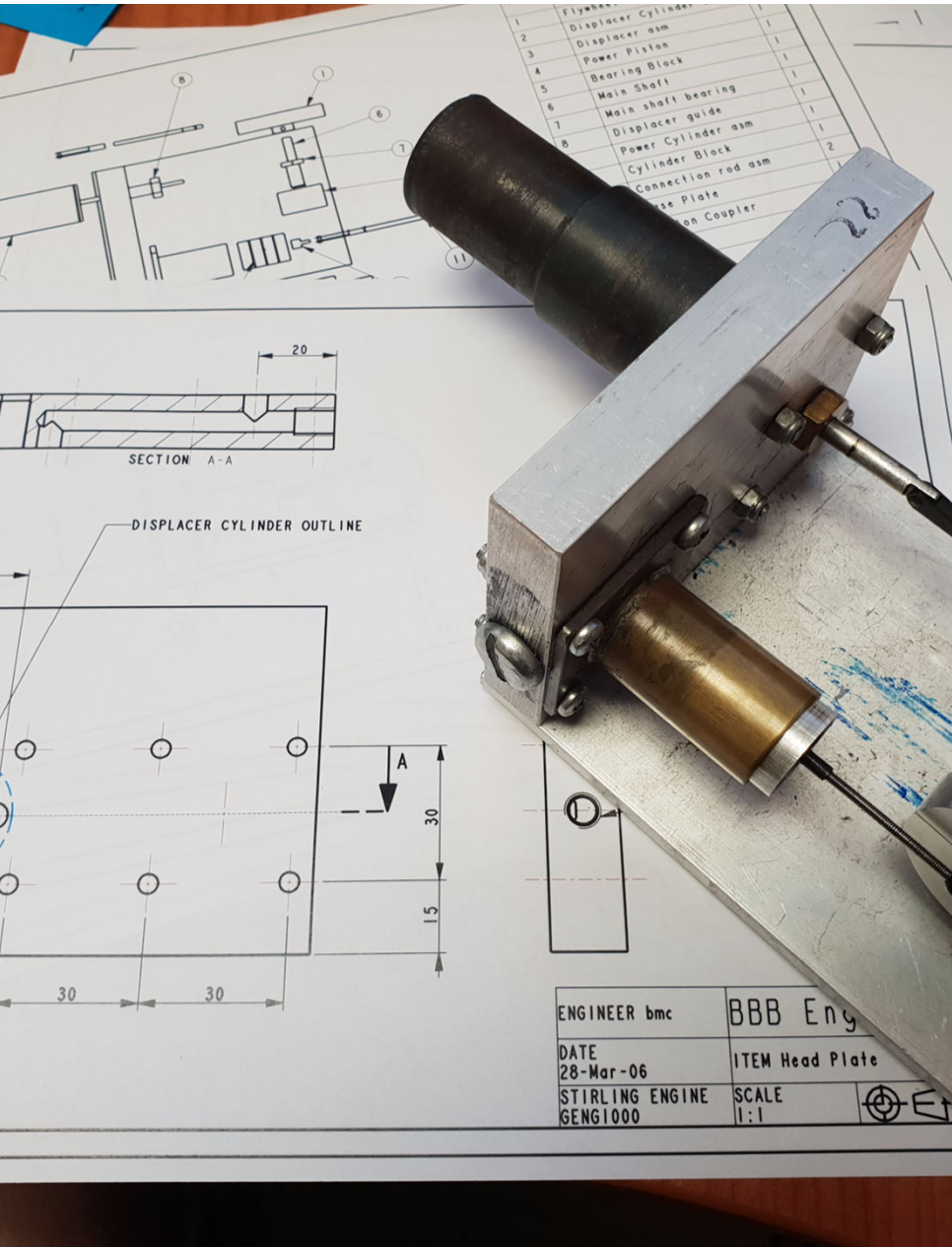
@caregiVR_AUS

The Value Proposition Canvas



The unlikely collaboration...





Engineering Design

~190 first year engineering design students

Graphical communication

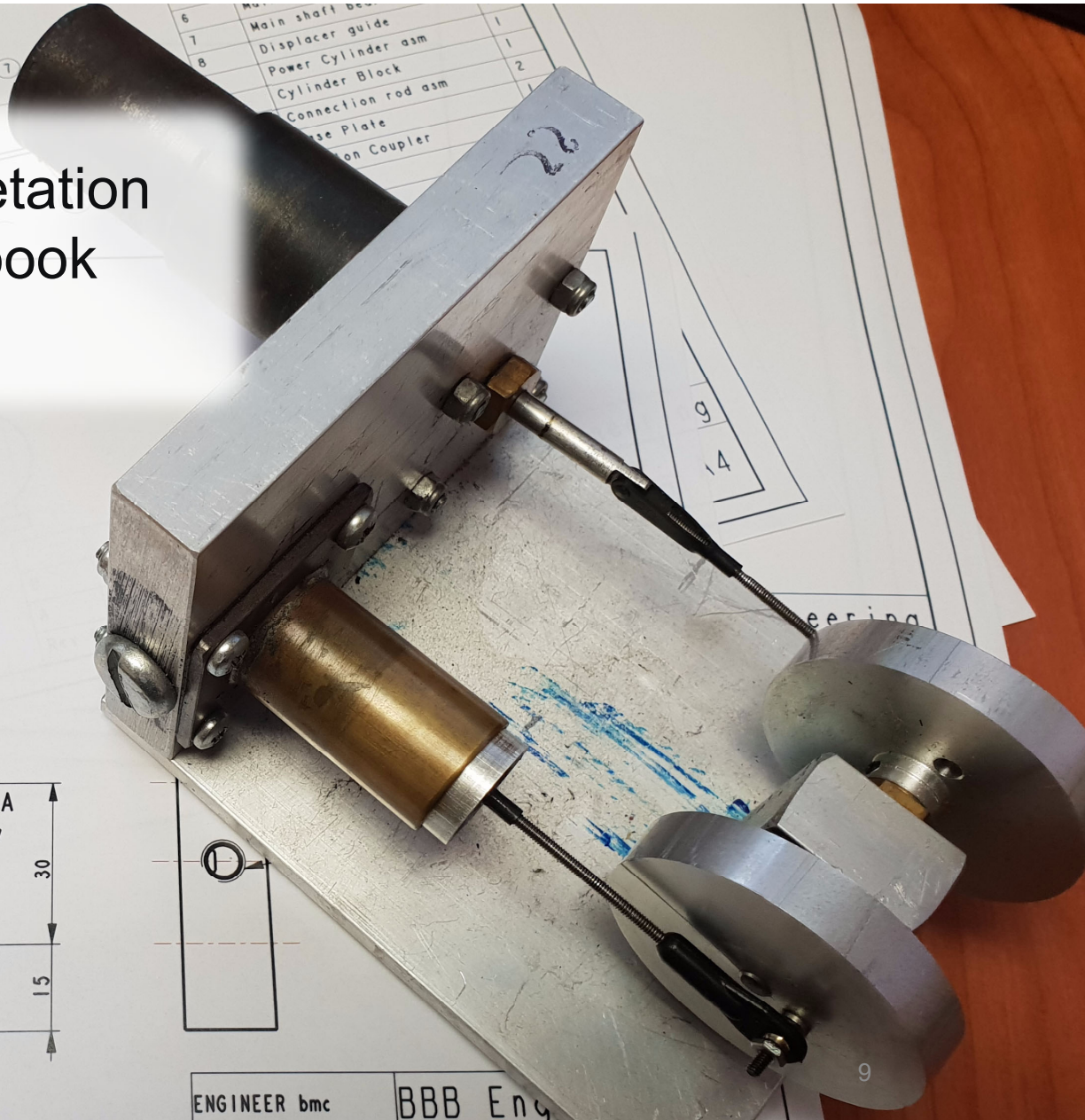
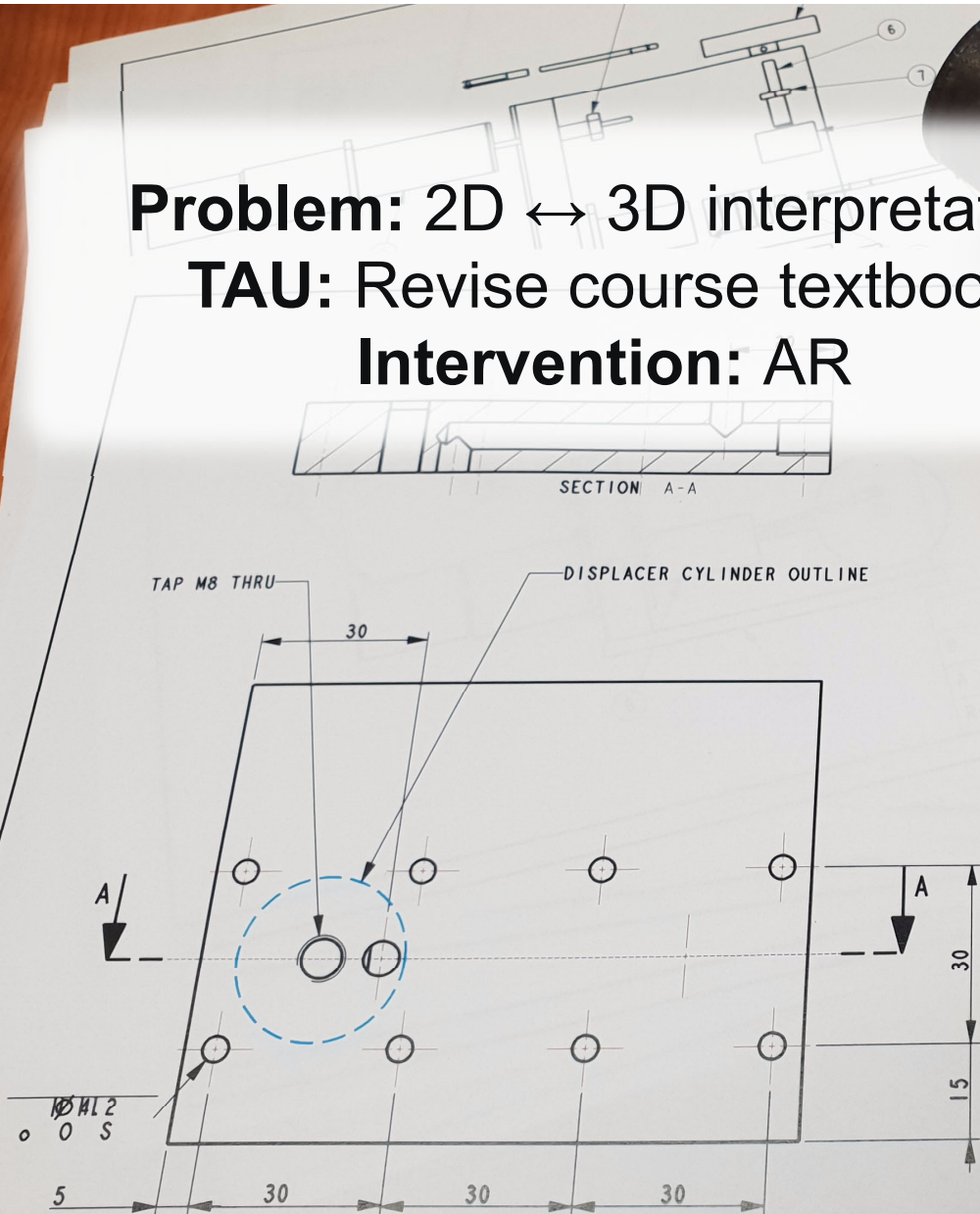
Workshop skills

2D drawing ↔ 3D object

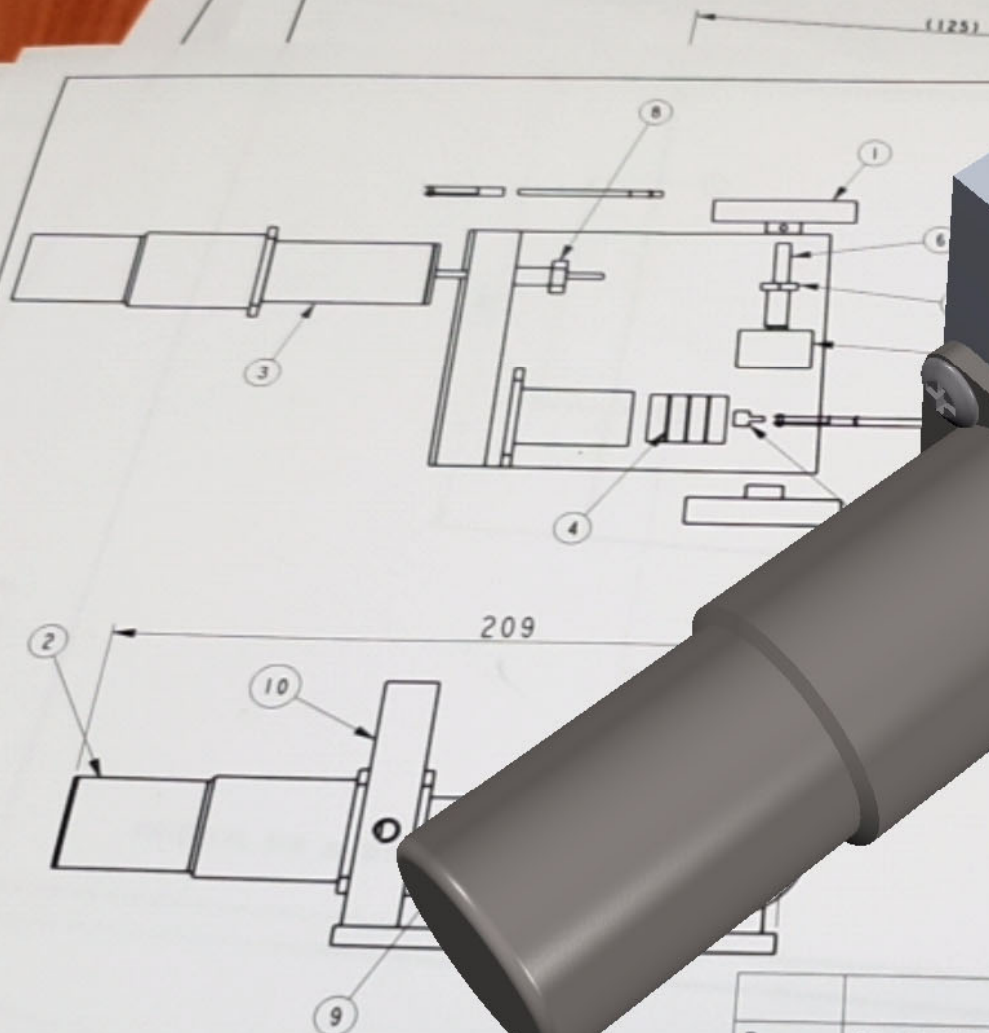
Problem: 2D ↔ 3D interpretation

TAU: Revise course textbook

Intervention: AR

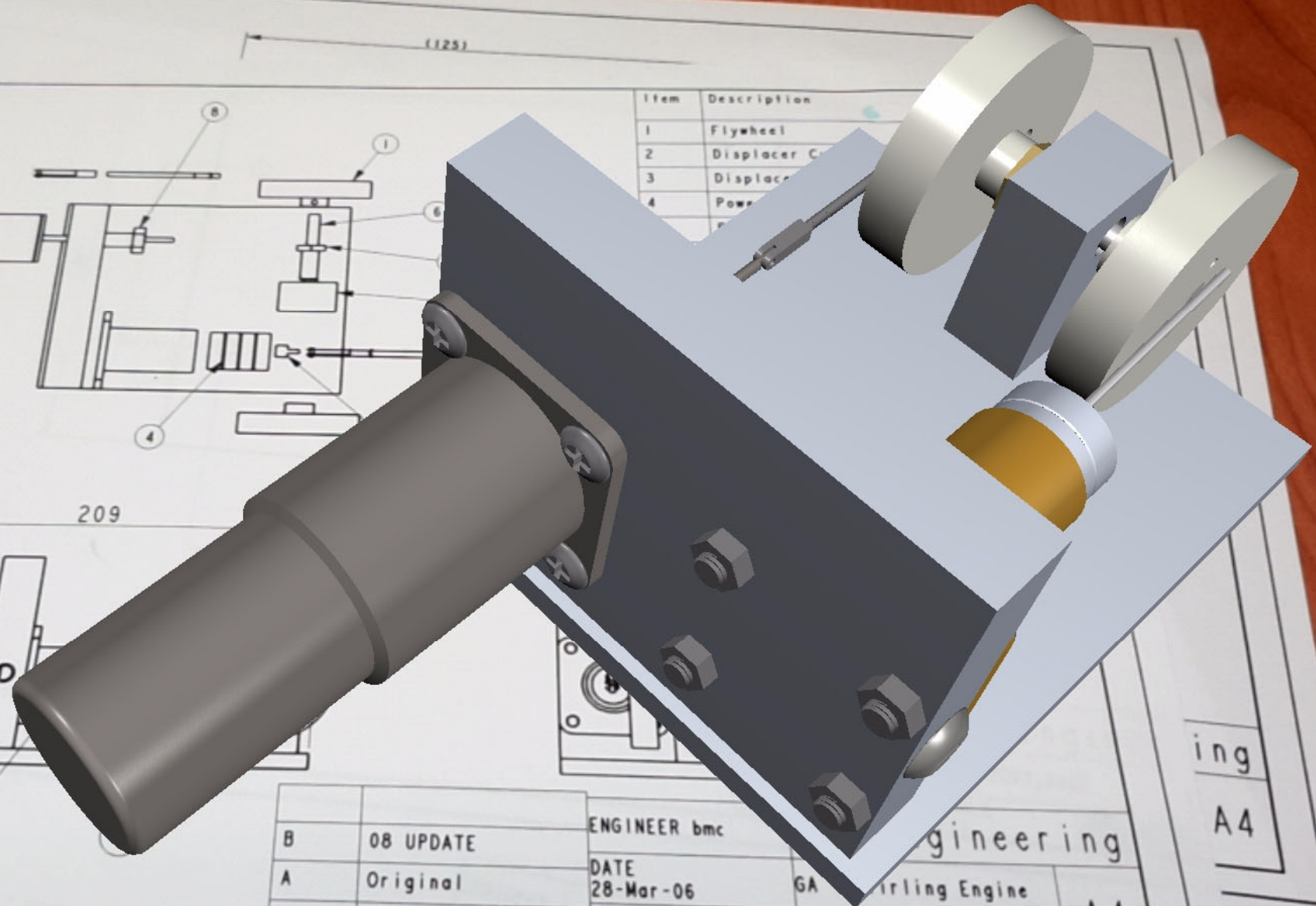


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Item Description

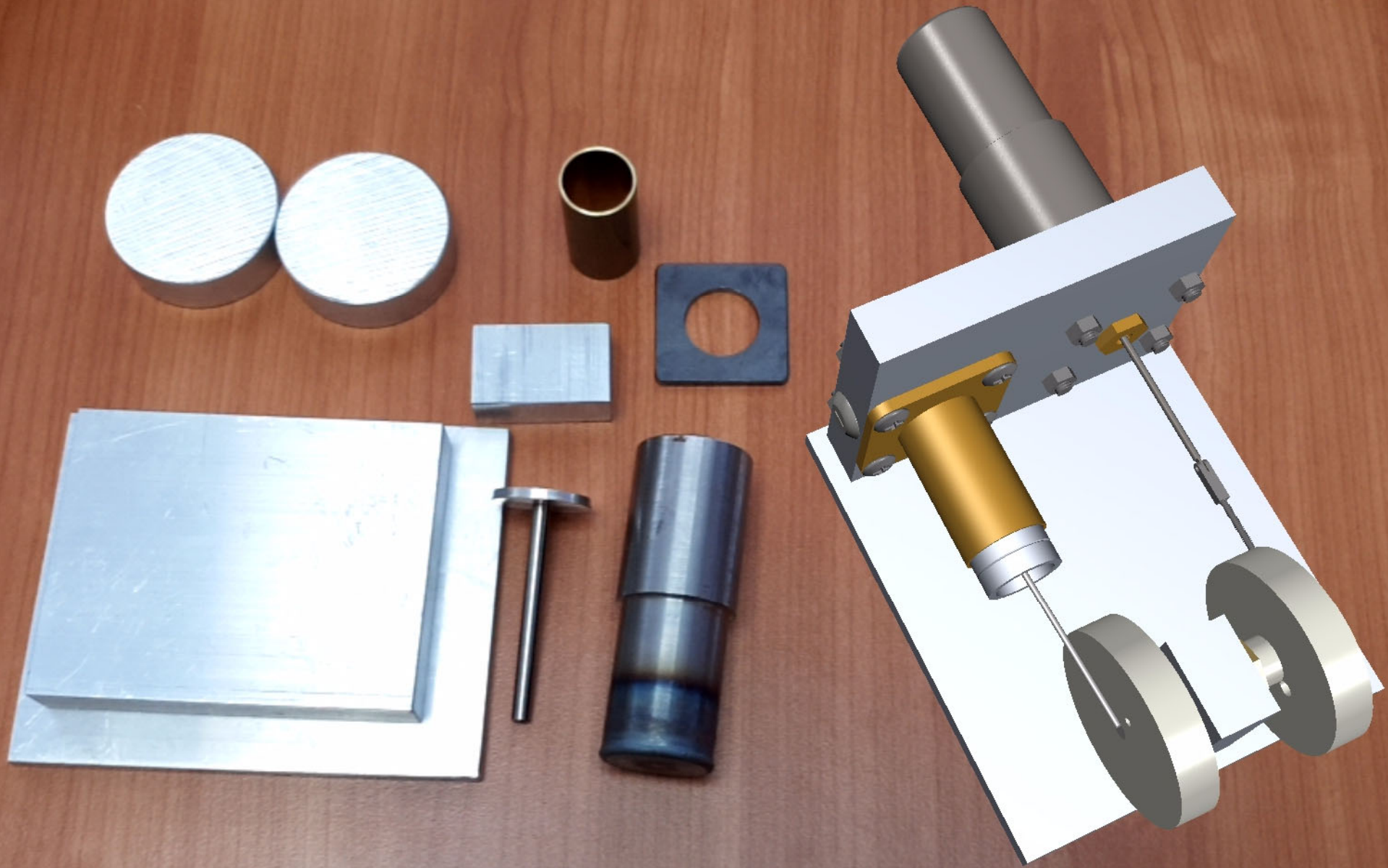
- 1 Flywheel
- 2 Displacer C
- 3 Displac
- 4 Power



B	08 UPDATE	ENGINEER bmc	Engineering
A	Original	DATE 28-Mar-06	GA Stirling Engine
Rev #	Description	STIRLING ENGINE GENG1000	SCALE 1:2

ing
A4

A4



Student feedback

Positives

Improved spatial skills

More engaging, motivating, and fun than 2D drawings

Improve workshop safety and confidence

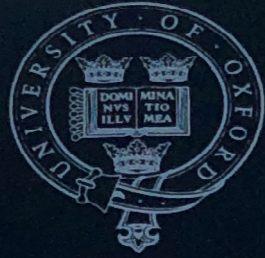
Should be used more by lecturers in FEBE

Challenges

Enhances collaboration

Feedback

Single use case



PETER MEDAWAR BUILDING
FOR PATHOGEN RESEARCH



UNIVERSITY of
GREENWICH



So What now

- Continue collaborations with School of Engineering and Built Environment
- Third Conflict resolution VR prototype developed ready for research testing in 2019
- Collaborations being developed with existing neonatal VR with midwifery schools at University of Surry UK Artesis University College Antwerp
- Keep collaborating and disrupting the transformative technology space

Reflections

- Collaborate outside your comfort zone
- Innovation as a liability?
- Student feedback
 - Positive
 - Engaging, motivating, and fun
 - Expected in the future

**Transformative technologies = work in progress,
big future**

ACKNOWLEDGEMENTS

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Professor Kevin Hall DVC-RI

Professor Mark Flynn

Professor Rohan Walker

School of Nursing and Midwifery VR/AR research Team

Innovations Team UON

CSIRO Accelerate program

Teaching Innovation investment scheme



THANK YOU

Questions?

