The Learning Coding and Prototyping (LCAP) Program
Aims:

1. Equipping our students with coding and communication skills to be a programming developer

2. Helping students to prototype their innovative ideas

3. Encouraging students to participate in competitions such as hackathon, CUPP, Imagine Cup, etc
Workshops and mentoring:

1. Workshop hosted by industrial partners (Friday Evening)
2. Mentors meetup on bi-weekly basis
3. Our industrial partners:
   - Microsoft
   - Oursky
   - MAD Gaze
   - Sengital
   - Hong Kong Computer Society
CRESDA

1. 80% attendance of workshops and mentorship meetings
2. Submission of monthly reports at the end of each month (11:59pm)
3. Submission of minimum viable prototype before 31 May 2018 (11:59pm)
How to apply:

1. Form a team of 1 - 5 CityU students from any academic disciplines

2. Find a problem from our 4 themes (next slides) to solve

3. Submit a one page proposal of at most 1500 words

   to calevent@cityu.edu.hk
How to apply:

4. The proposal should consist of

- your team members info
- the problem
- the technology to use
- how your idea solves the problem
LCAP program 4 themes:

1. Sustainability
   (https://www.youtube.com/watch?v=zwJ5E_EUUF4)

2. Health
   (https://www.youtube.com/watch?v=9c05imowc7Q)

3. Security
   (https://www.youtube.com/watch?v=ckHdkOR1OHg)

4. Joy of Living
   (https://www.youtube.com/watch?v=sk3T3_QYrT0)
Examples
Sustainability

1. Oroeco - Carbon footprint calculator

- An app to calculate your daily carbon footprint
- Offer tips adapted to your necessities and way of life
- A community to compare your impact on the environment with others
- Help to reduce carbon emission
Source:

https://www.oroeco.com/
Health

1. BrainCheck

- A technology startup
- Mobile app test to measure cognitive functions
- Log cognitive health data
- Provide physicians with your brain health data

Sources:

https://braincheck.com/products/

https://techcrunch.com/2016/10/27/braincheck-raises-3-million-for-app-to-monitor-brain-health/
2. GazeSpeak

- Mobile app developed by Microsoft
- For patients who cannot speak
- Machine learning to recognise eyes gestures
- Using eyes gestures to predict utterance

Source:

Security

1. Indoor security camera with face recognition

• Recognizing your family member with face recognition
• Receive alert when home intruder is detected
• Picture/video of intruder can be recorded and stored in the cloud or local SD card

Source:
Joy of Living

1. Increase self-compassion in depressed patients with virtual reality (VR)

- **Problem**: Self-criticism hinders the recovery of depression

- **Solution**:
  - Patients are trained to express compassion to a virtual distressed child in VR
  - The virtual child responds positively
  - The patients then see themselves being that child to receive compassion

- **Result**: 3 repetitions of this scenario led to significant reductions in depression
1. Increase self-compassion in depressed patients with virtual reality (VR)

Sources:
- [http://bjpo.rcpsych.org/content/bjporcpsych/2/1/74.full.pdf](http://bjpo.rcpsych.org/content/bjporcpsych/2/1/74.full.pdf)
- [https://www.youtube.com/watch?v=GwxJVCESc-E](https://www.youtube.com/watch?v=GwxJVCESc-E)
Timeline

1. Recruitment
   - Deadline: 26 Jan 2018

2. Grand Opening
   - 9 Feb 2018

3. Workshops and mentoring
   - Feb to May 2018

4. Program closing
   - May 2018