CONSTRUCTION INDUSTRY COUNCIL
建造業議會

鷹網智能監測系統
I-Vision Smart Monitoring System

港進建機服務中心有限公司
Kong Chun Construction Machinery Services Centre Limited

CIC Webinar
for
Innovative Solutions for Lifting Safety

I-Vision Smart Monitoring System
鷹網智能監測系統

Pre-Approved Lists : PA20-073

PREPARED BY

港進建機服務中心有限公司
KONG CHUN MACHINERY SERVICES CENTRE COMPANY LIMITED

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公司簡介

- 我們關注到近年涉及流動式建造機械的工業意外頻生，去年年中，公司決定組成一個研發團隊專門研究有關的解決辦法。 Since we found a number of severe industrial accidents happened in the past years, we have formed a team of experts to working on possible solutions.
- Recent Industrial accidents
  近期建造機械意外頻生

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產品簡介

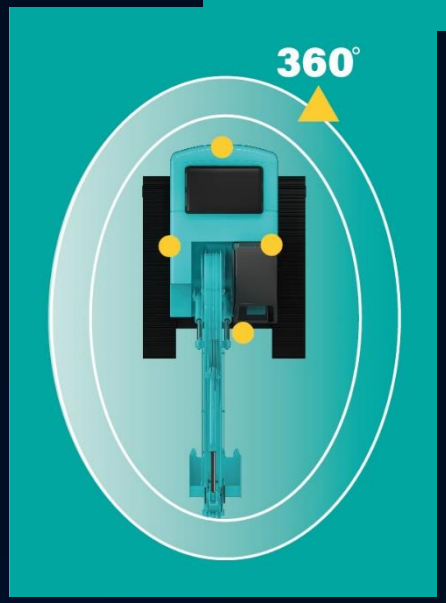
I-Vision system allows operators to view the environment surrounding a machine with wide angle eyes

We aim to
1) reduce blind spot → Accident Rate Decrease
2) guaranteed productivity without suspension notice in force
→ time & money saving

通過鷹網智能監測系統採用360°全景高清鳥瞰全景合成影像

1) 消除盲點→ 大大減少盲點而做成的意外

2) 保証生產效率不會因意外被停工所遭受的時間及數以百萬計的經濟損失



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產品特色、與市面上現有後視系統對比
Features VS OTHER TRADITIONAL CAMERA

I-Vision Smart Monitoring System
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- 4鏡頭，分佈前後左右4個方向 / 4 cams for 4 directions
- 高清攝影鏡頭 / Hi Res Cam 720P
- 具備影像移動偵測 移動 物品 detection of moving object
- 並發出警報提示 Warning buzzer
- 2D/3D 視野轉換，以3D 360立體視野觀察挖泥機四周環境 / 2D 或3D view change by bird's eye-view
- 機器啟動時3D全境環機檢示 Walk around check by 3D vision when ignition
- 4個鏡頭可以錄影/ recording

現有後視系統 Traditional Camera

- 1鏡頭，只在後方 / one in rear only
- 低像素攝影鏡頭 /Lo Res Cam 480P
- 不能偵測 移動 物品，沒有警報提示 / No detection function
- 沒有警報提示 No warning buzzer
- 2D 視野 / 2D view
- 不可以錄影 / No recording

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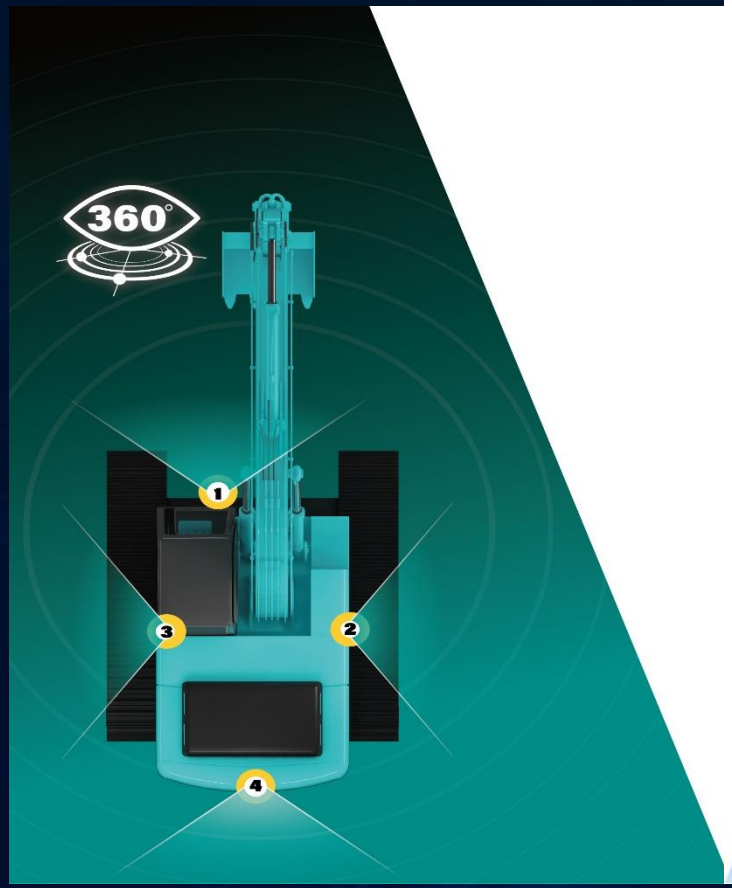
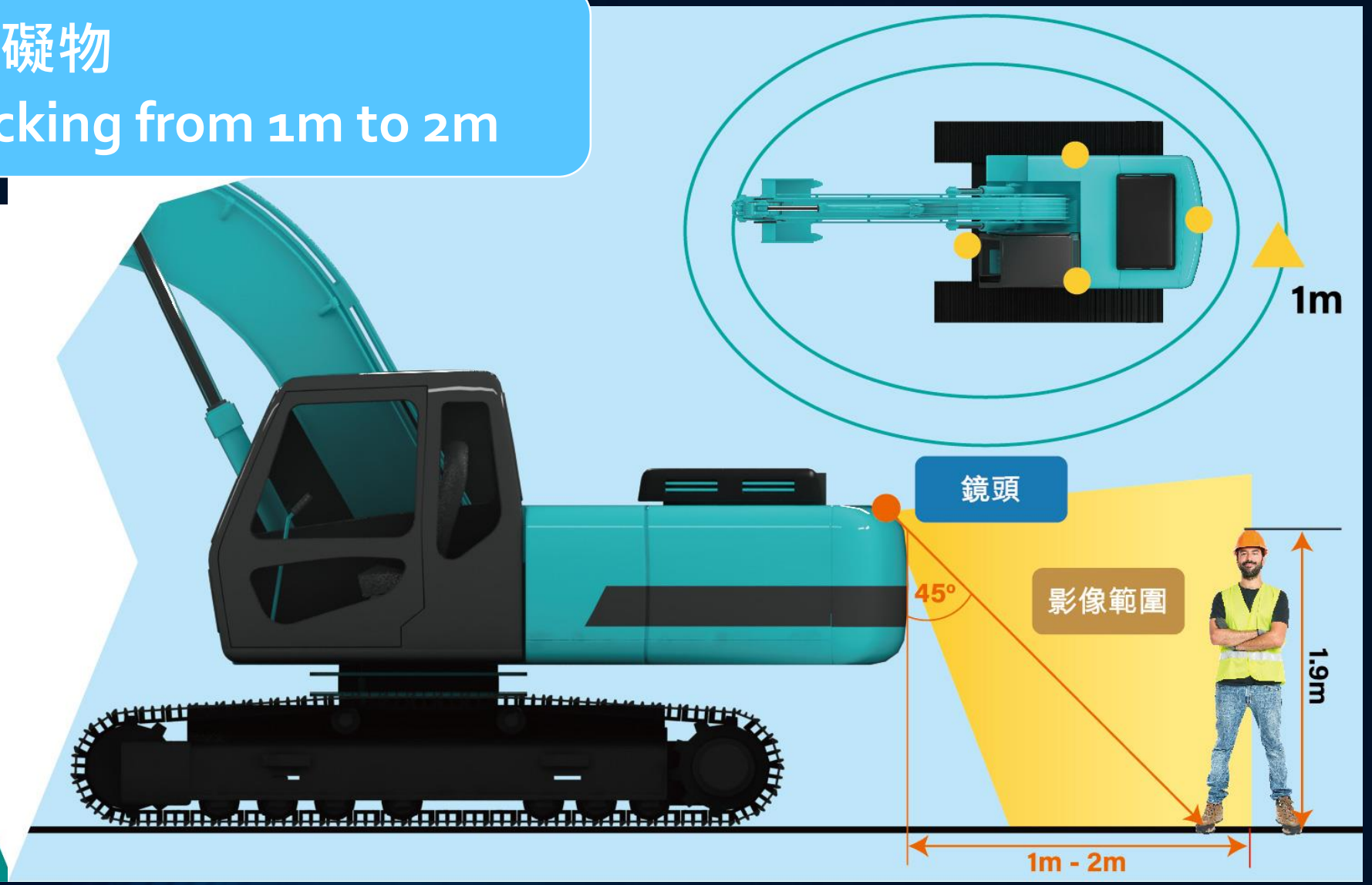
全景偵測1-2米範圍障礙物
all angle distance checking from 1m to 2m





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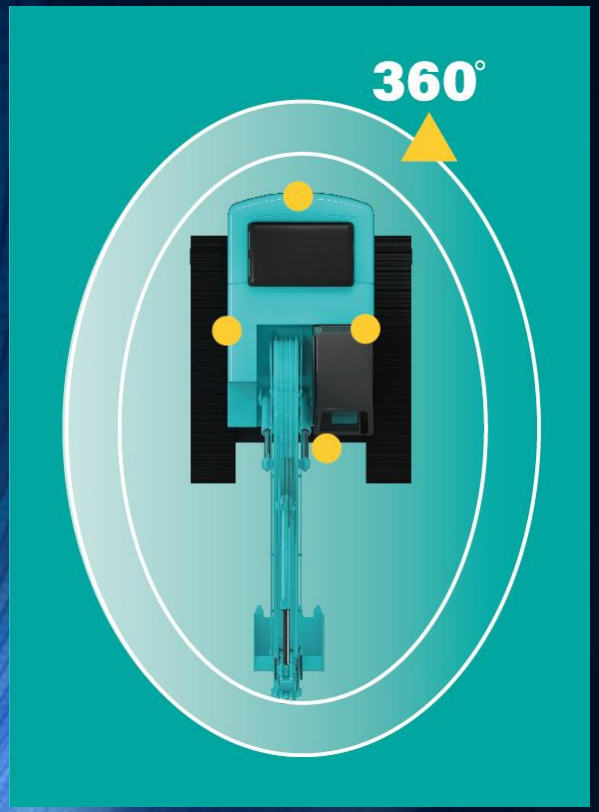

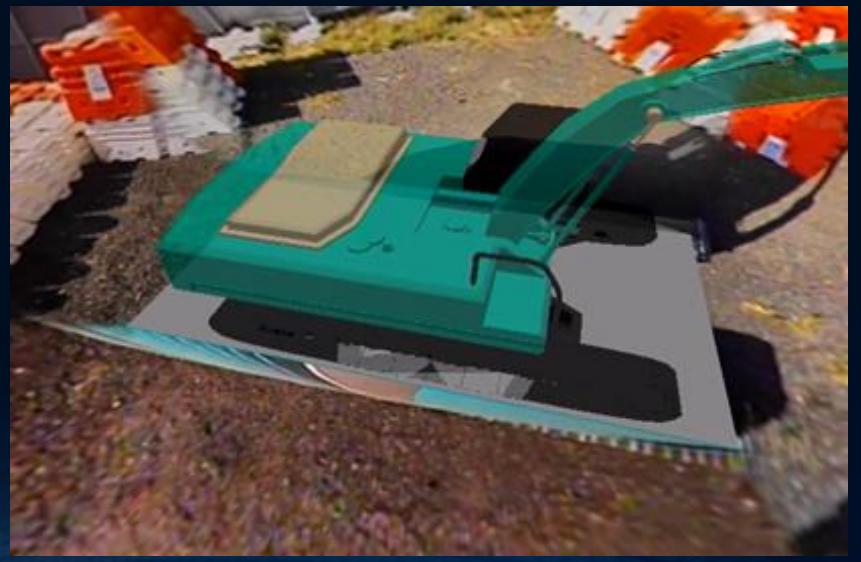

- 4鏡頭，分佈前後左右4個方向
- 透過內置軟件系統，把4個鏡頭拍攝的影像組合成 全方位3D立體影像
- The system displays a 3D bird's eye-view through a full 360° around the machine.

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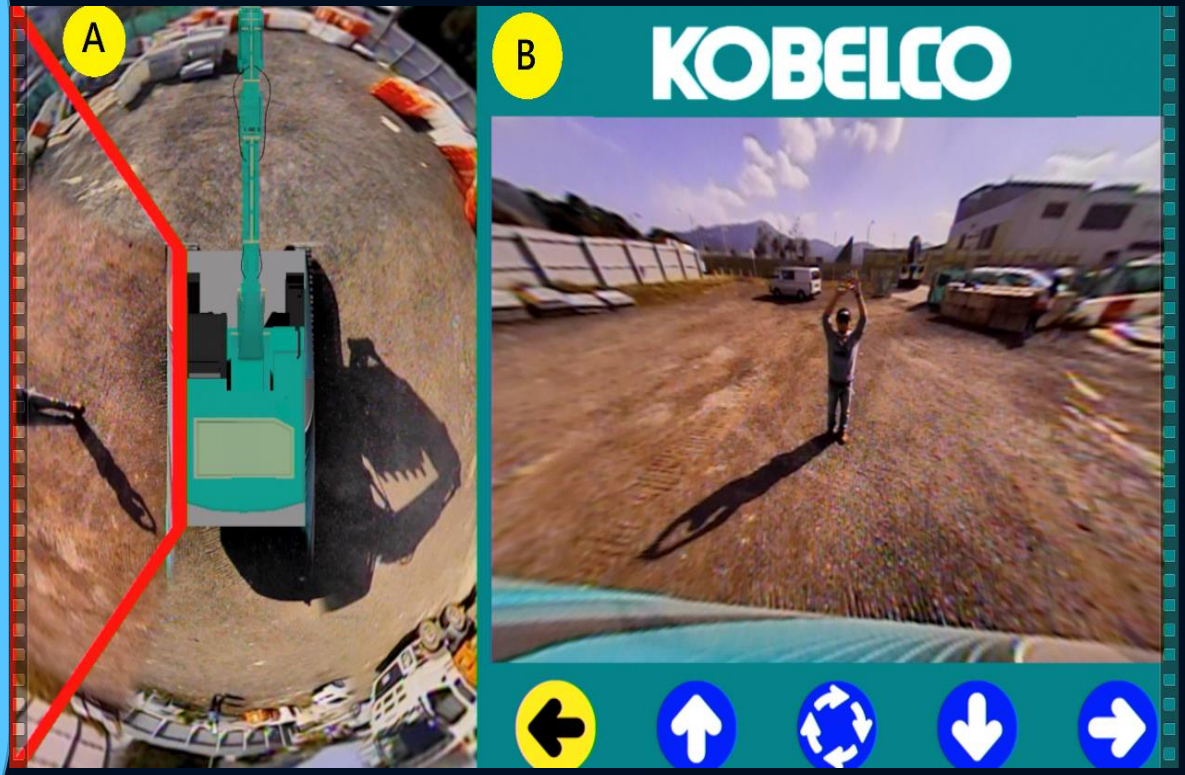
- 當系統偵測到 移動 物品，監察螢幕會以一分為二的畫面顯示，如圖示
  Screen will be separated into two sections when it detects an object

- 左邊(A畫面)：鳥瞰式360度全方位監察畫面，當偵測到移動 物品會以紅線標示有區域
  Left (Screen A): I-Vision can generate a bird's-eye view with red solid frames The system displays a 3D bird's eye-view through a full 360° around the machine.
- 右邊(B畫面)：會顯示偵測到移動 物品**區域**的鏡頭影像
  Right (Screen B): the image will be appeared when it detects any objects



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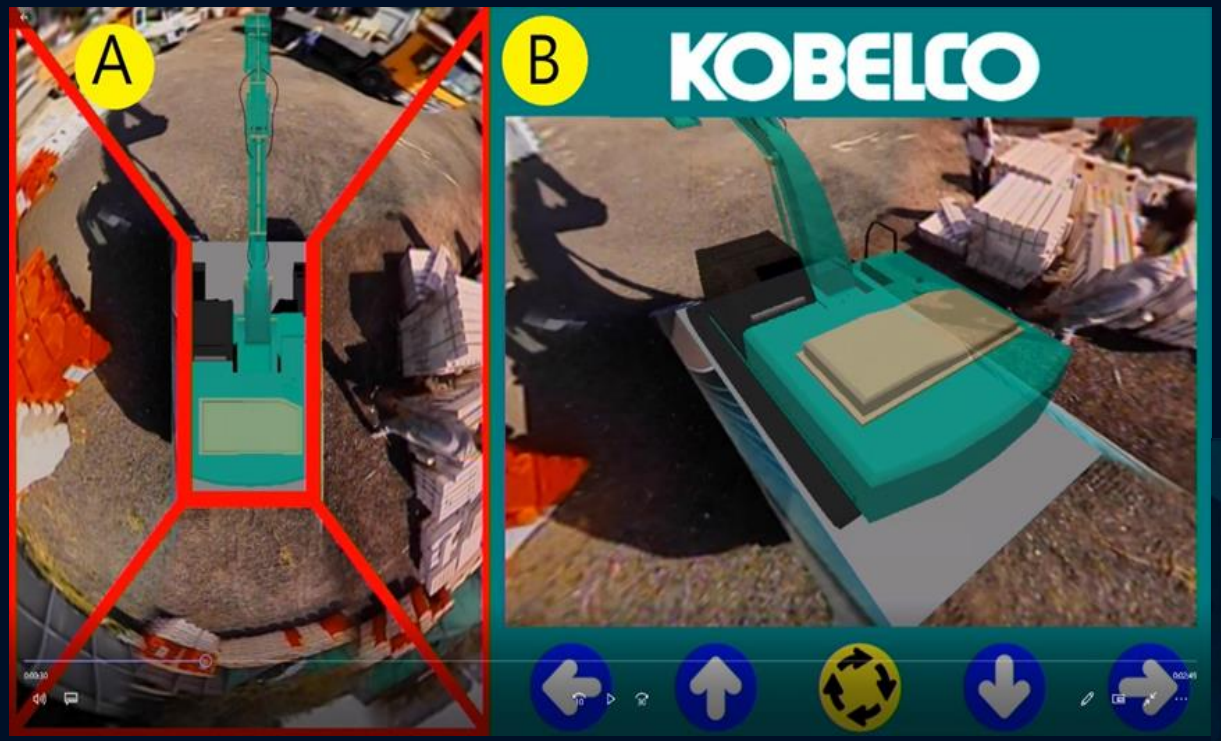
- **兩個或以上區域 同時偵測**到 移動 物品，就會在右畫面以 旋轉方式 顯示全方位3D立體影像
- if more than one side of obstacles are detected, machine will be shown in rotation mode in screen B



支援低光 / 強光環境
Supports extreme lighting environment

系統有錄影功能，4個鏡頭同步錄影
Recording by 4 cameras
四個鏡頭,將會獨立儲存影像,方便日後參考以SD卡儲存紀錄((最大容量:128GB)
Max storage capacity up to 128GB

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Conclusions 總結

There are a number of large contractors are willing to apply the I-Vision into their load shifting machines.
現時已有不少的大型承建商已為他們的負荷物移動機械使用了鷹網
Having the approved by CITF, we expect our I-Vision will be extensively used by other small contractors
我們預期獲得基金的批准後，將有更多的小型承建商願意安裝
Besides construction industry, the I-Vision will apply in other industries such as for heavy vehicles which we would like minimize the road accidents in the long run.
長遠來說，更希望普及至其他行業，如重型運輸業，希望改善不必要的意外出現

在不久將來,我們將利用雲端技術整合到鷹網的應用,發揮更大的效能
In the near future, our I-Vision System will apply cloud based technology in order to maximize its effectiveness.

~多謝觀賞 Thanks you for your attention~