

楊約慈

除墨印表機 Lucky Unprinter

公司行號及行政機關繁忙的業務量導致每年產生數百萬噸的二氧化碳。資源回收雖正確卻仍然是一個非常耗時又耗費資源的過程。如果我們可以簡單地刪除掉影印紙上的文字，而不是重新漿製紙張，根據統計這樣的碳排放量只有資源回收的一半，效率也幾乎是20倍。英國劍橋大學研究團隊研發了unprinting的技術，其消融文字又不傷害紙張的訣竅。在於使用532nm的綠光雷射，容易被碳粉吸收但又能無害地通過紙張的纖維，當雷射光束發散射至紙張上來蒸發碳粉中的塑膠聚合物，即能讓紙再次變得乾淨，且可重複使用，蒸發的碳粉將會被吸收器吸附，無害低汙染且友善環境。整體外觀造型以人類最好的朋友—「狗」作為發想，討喜可愛的外觀，命名為LUCKY，有著親切、友善的感受，期盼成為人類愛護地球的最佳夥伴！

Every year, paper discarded from businesses emits million tons of carbon dioxide. Apparently, traditional paper recycling still consumes time and resources. In light of this, the University of Cambridge has developed a technology which is capable of removing the print from paper by using laser. By using 532nm green laser light which can be easily absorbed by dark toner but pass harmlessly through cellulose fibers in the paper. The plastic polymer in the toner is vaporized, then the paper becomes clean and usable again. The vaporized ink will be absorbed by toner absorber. It's harmless, low-polluting and eco-friendly.

According to statistics, this new technology, unprinting, can help reduce half of the carbon emissions released by traditional paper recycling. Based on unprinting technology, the Lucky Unprinter is designed to reuse office paper several times before it is recycled. Aside from the practical application that helps improve our environment, the Lucky Unprinter comes in an adorable dog-shaped figure that gives you a friendly visual pleasure. The Lucky Unprinter is looking forward to being the best partner to humans to protect our earth together.

得獎作品

prize-winning works

## 2017 環境關懷跨領域設計競賽 ▶ 佳作



得獎作品  
prize-winning works

