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## RESEARCH



FUNCTIONALITY & PRICE  
2 VS. 1

## EARLY CONCEPT



## FINAL CONCEPT



new way to scoop dirt



Size compare to the 4CX



Depart from the main body



Concept:

This is a concept backhoe loader capable of doing two jobs at once. The backhoe loader can work alone as a tractor or it can detach to become a stand alone loader and a backhoe unit that can be ran by remote control. The redesign increases the function of the backhoe and makes the scooping process easier. The backhoe loader is ran by a diesel electric powertrain that simplifies the mechanical structure.



Holding the excavator part



Tractor Engine

Excavator Engine



160 Degree

360 Degree



Dozer blade



Arm turn 180 degree



Track protrude to two sides for well balance



4 wheel drive



3D Camera