

# AUTOMATED LOCOMOTIVE TRANSFER TABLE

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## ABSTRACT

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Turntables are devices used in railroads to rotate and align locomotives to several designated tracks in junctions connecting multiple tracks. A scaled down version of an automated locomotive transfer table is to build to show the implementation of automated locomotive transfer table would work. The automated locomotive transfer table aims at fully automating the process of the track to selection and the relocating of vehicles/locomotives from their track of origin to several designated tracks. The system also focuses on improving the overall safety of the turn table and simplifying the way with which the driver interacts with the system.

The system works by using a number of strategically placed sensors on the track to alert the system of the incoming train which will then check if the turntable is occupied before rotating it to align the tracks of the turntable with those of the incoming train. As the train approaches the system produces a warning signal as a safety precaution to warn away any people nearby. The system then prompts the locomotive driver to select a track he wishes to be redirected to which will then be displayed to him on an LCD display on the train. Once on the turntable, strategically placed sensors determined whether the locomotive has been properly parked before it can rotate the train to its designated track. The process is to be repeated over and over again for every locomotive that comes to use the turntable.

The automated transfer table system can be improved for increased efficiency and lowering the cost of operation by designing a means using green and renewable form of energy (solar powered) and employing a GPS technology for accurate tracking of the approaching and departing trains.