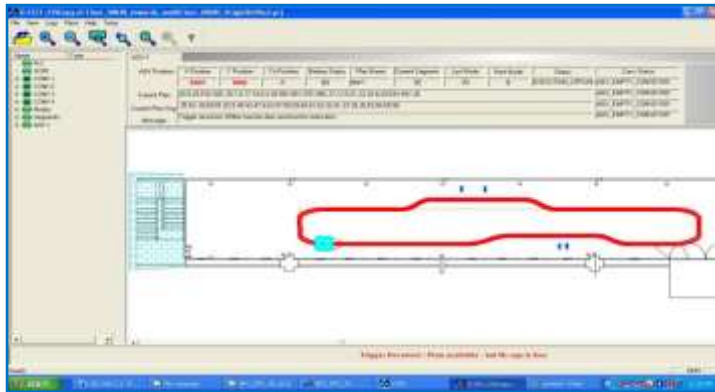


AGV based Automated Material Transfer System

DRHR has developed an Automated Material Transfer System based on Autonomous Guided Vehicle (AGV). This system is general enough to deploy in any area requiring material transfer. Indigenously developed AGV is a battery powered mobile platform having two steer-and-drive wheels mounted on its central axis and four support castors on corners. This has an onboard mechanism of powered conveyors to load and unload materials. The system conducts material transportation on the basis of real time requirements of material at drop-off points and availability of the same at pick-up points. Adjoining images show an Automated Pellet Boat Transfer System developed for deployment at NFC, Hyderabad. The operation loop of this system includes the transfer of assembled pellet boats from the compacting stations to sintering furnaces on the charging side, transfer of sintered pellet boats from the discharging side of the sintering furnaces to the boat disassembly stations and transfer of empty boats back to the compacting stations. The system provides the advantage of safe and efficient material handling. The AGV uses a laser based free ranging techniques for localization and path following which makes the system highly flexible and adaptable to any changes or additions in the layout of equipment



AGV on test setup at DRHR



Display Plan and Control software for AGV



Autonomous Guided Vehicle (AGV)

Specification of AGV for Automated Pellet Boat Transfer System

Payload : 250kg	Material Handling : Powered Conveyors
Self weight : 500 kg	Alignment accuracy : +/- 10mm
Size : L-1440xW-900xH-2100 (all mm)	Max Speed : 1 m/s