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Design and Analysis of FDM Gear Coupling

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Abstract: In many transmissions mechanism and drives the couplings play a crucial role of providing the vibration free, safe transmission of power from input to output shaft of equipment. Although the conventional rigid couplings when properly designed, selected and maintained, can provide good service life. Gear couplings are standard, however in some cases customized couplings are needed which are not possible to produce because of very high molding costs. Project aims at design, modeling, analysis and comparison testing of the gear coupling that is 3-d printed. The modeling of the compact drive system has been done using Unigraphix Nx-8 whereas the analysis is done using Ansys Workbench-16.0.

Keywords:Gear Coupling, Customized, Modeling, Analysis, 3-D printing. etc.

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