Name- Jaydeep Upadhyay

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Project Name- Single Cylinder Engine

Objective-:

This model aims to accurately represent the physical components and internal mechanisms of a single-cylinder engine, providing a comprehensive visualization of its structure.

Theory-:

A single-cylinder engine is a type of internal combustion engine with only one cylinder for the power-producing process. This simple configuration is commonly used in small-scale applications such as motorcycles, mopeds, and some small machinery. In this design, a piston moves up and down within the single cylinder, driven by the combustion of fuel and air mixture. The movement of the piston is connected to a crankshaft, converting the reciprocating motion into rotational motion, which ultimately drives the mechanical system or vehicle. Single-cylinder engines are known for their

simplicity, lightweight nature, and efficiency in specific applications where compact design and cost-effectiveness are essential.

What I Have Done

I have modelled 14 parts in SolidWorks and then made one subassembly by assembling 2 parts to make the valve of the engine and at the end I assembled all the parts including the sub assembly to make the engine.

I faced difficulties in assembling small parts of the engine.

References

I got help from a YouTube video from the cad cam tutorials channel.