

DESIGN AND DEVELOPMENT OF MOTORCYCLE ENGINE DETECTION TOOLS BASED ON ARDUINO AND ANDROID

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ABSTRACT

The current mode of transportation is a necessity for the community to support mobilization, especially the two-wheeled transportation mode of motorbikes. Over time, the production of motorized vehicles has improved every year, especially in the exhaust emission system, which must follow the euro standard in the country to reduce exhaust emission levels. However, some people still use two-wheeled motorized vehicles, especially bicycles from the old year which still use the carburetor system and the exhaust emission levels are still high. To reduce exhaust emission levels while knowing the status of damage to two-wheeled motorcycles, especially motorcycles, the author wants to create tools and android applications to make it easier to detect engine damage status and record vehicle data and to determine exhaust gas emissions released including hydro carbon, carbon monoxide and nitrogen oxides. The programming language used to build tools and applications for detecting machine breakdowns is Pascal using Embarcadero Delphi XE10 and database processing using MySQL.

Keywords: *gas, hydro carbon, carbon monoxide, nitrogen oxide, Android*