

## ABSTRACT

Currently the stone processing industry is experiencing a serious problem..Some survey have proves that the quality of stone produced by grinding stone unsatisfactory caused by several factors, one of them is caused by a steamroller who works less maximally because many metal or iron through a machine millstones.Even the impact can spread and may cause damage to a steamroller.To is required a device that could minimize the things already mentioned above.

This organ is designed by using arduino uno r3 and sequence sensors metal as a unit processor, and sms gateway and alarm buzzer as a unit a warner and relay and motor dc to a system mekaniknya.Sensors metals detect metal by changes frequency through the aid of coil.And when the occurrence of a change the frequency so arduino will send to the command relay, alarm buzzer and led, and module gsm sim900 simultaneously.

On the project this end, sensors metal designed can detect any the presence of metal through conveyer.Sensors would detect when things metal being at a distance 0-2,1 cmSensors can be detect all type of a metal object as scissors, nails, of mobile phone, and others.But sensors not could detect goods as a precious metal, as gold, silver, and bronze because of differences in inductance in the precious metals. madeAt the time detected the metal, device sms gateway to send notification operator.

Keyword : Stone Crusher, *SMS Gateway*, Microcontroller, Metal, *Conveyor*