

## PERANCANGAN PRA-PABRIKASI KOMPONEN RUMAH TUMBUH TAHAN GEMPA

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### ABSTRACT

*Most of houses in Indonesia are conventionally constructed, so that takes a long time and expensive but have not the strength of earthquake resistant. As an alternative to overcome this, we have performed design of Pre-Fabrication of Sloof Segment, Columns, Beams, Lockbrick Modular Houses Growth Earthquake Resistant, resulting in 3 components (Sloof beams, columns, lockbrick), consists of 12 types. This component can be used to build houses grew gradually until type 27 type 70, the implementation does not require highly skilled carpenters, short construction time, and the price is cheaper than conventional means. Research approach begins with the framework approach of the program, then the method described implementation mechanism of the machine, the production process, proceed with step work machine, and printer engine design that will be created. Activity yield (1) Printing Machinery Segment Sloof, Modular Block (2) Modular Block Sloof Product Segment (3) Test compressive and flexural test product can not be done due to time constraints.*

**Keywords:** Home grown, earthquake resistant, Sloof and beam modular segments.

### PENDAHULUAN

Rumah merupakan kebutuhan pokok manusia, karena itu selama masyarakat yang kebutuhan rumahnya belum terpenuhi dan adanya pertumbuhan penduduk maka kebutuhan rumah selalu meningkat. Data Statistik 2007 menunjukkan jumlah penduduk Indonesia 230 juta jiwa. Dari jumlah tersebut, 6 juta keluarga belum memiliki rumah, sedang dari penambahan penduduk sekitar 1.68 % atau lebih kurang 7 juta keluarga belum memiliki rumah, sehingga

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