



**TOGETHER**  
*for a sustainable future*

## OCCASION

This publication has been made available to the public on the occasion of the 50<sup>th</sup> anniversary of the United Nations Industrial Development Organisation.



**TOGETHER**  
*for a sustainable future*

## DISCLAIMER

This document has been produced without formal United Nations editing. The designations employed and the presentation of the material in this document do not imply the expression of any opinion whatsoever on the part of the Secretariat of the United Nations Industrial Development Organization (UNIDO) concerning the legal status of any country, territory, city or area or of its authorities, or concerning the delimitation of its frontiers or boundaries, or its economic system or degree of development. Designations such as “developed”, “industrialized” and “developing” are intended for statistical convenience and do not necessarily express a judgment about the stage reached by a particular country or area in the development process. Mention of firm names or commercial products does not constitute an endorsement by UNIDO.

## FAIR USE POLICY

Any part of this publication may be quoted and referenced for educational and research purposes without additional permission from UNIDO. However, those who make use of quoting and referencing this publication are requested to follow the Fair Use Policy of giving due credit to UNIDO.

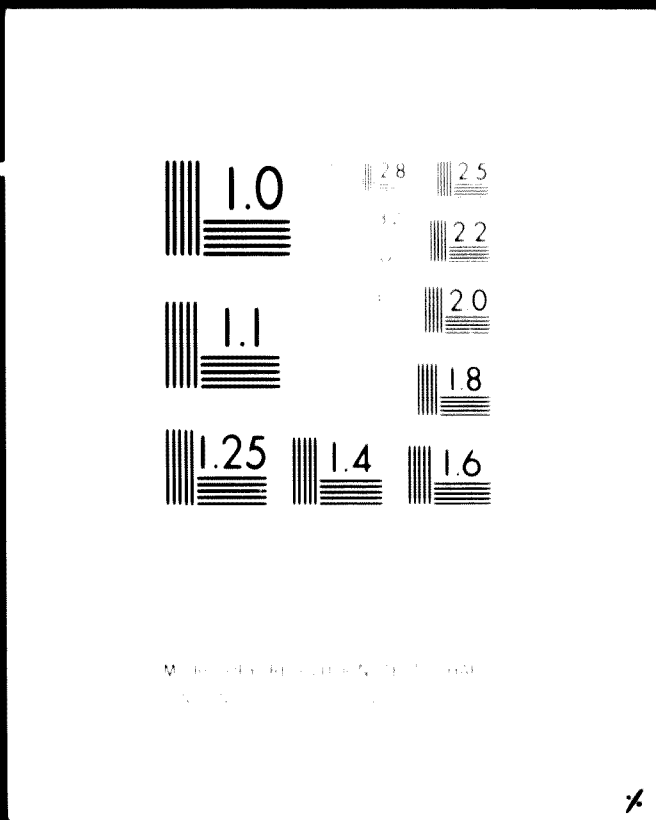
## CONTACT

Please contact [publications@unido.org](mailto:publications@unido.org) for further information concerning UNIDO publications.

For more information about UNIDO, please visit us at [www.unido.org](http://www.unido.org)

# 1 OF 1

# 01020



24 x  
E



81020



PROJECT INFORMATION SHEET

United Nations Industrial Development Organization

SIN-01-71

SECOND ASIAN MEETING TO  
PROMOTE INDUSTRIAL PROJECTS<sup>1/</sup>

SINGAPORE, 3-11 November 1971

ELECTRONIC EQUIPMENT

COUNTRY	Singapore
PROJECT	Manufacture of electronic equipment such as calculators, educational kits, teaching aids, toys and others. Total investment US \$1 million Capacity: 5,500 units p.a.
FOREIGN CONTRIBUTION REQUIRED	- Loan (up to US \$1 million) - Export marketing and management assistance

<sup>1/</sup> Sponsored by: The Economic Commission for Asia and the Far East (ECAFE)  
The United Nations Industrial Development Organization (UNIDO).

187

IMPORTANT NOTICE

The basic purpose of this meeting is to provide an Exchange or Market Place for the initiation of contacts on specific industrial projects between their proponents from the Asian countries and potential suppliers of capital, finance, equipment or know-how, as the case may be, from the industrialized countries.

This Project Information Sheet has been prepared as a basis for such contacts. Its purpose is not to present detailed information about the project but to provide the recipient with an outline sufficient to determine tentative interest in principle. Any further available information on the project will be furnished on request to interested parties at the Meeting.

Experience has shown that industrialists frequently prefer to carry out their own further investigations in detail into projects in which they are interested, but assistance from UNIDO in these matters can be rendered to the Asian country concerned on request.

This Information Sheet contains only the information supplied to UNIDO by the proponent of the Project. UNIDO can therefore take no responsibility for its accuracy.

ELECTRONIC EQUIPMENT

I. INTRODUCTION

. The Project

The proponents envisage the establishment of a manufacturing company for electronic products, such as calculators, educational kits, teaching aids, toys, digital clocks, office intercommunication system, piped-in music and public address systems, to start with. (Complete list of products attached). A young and dynamic team of electronic engineers, who have received their training abroad, have developed new designs of a large range of electronic products.

. Foreign Contribution Required

A substantial loan, of up to US \$1,000,000, management assistance, marketing, (particularly export marketing assistance) is required.

. Government Attitude

The project is considered of high priority because these types of manufacturing ventures are very beneficial to Singapore's economy due to their high content of technological contribution to new production fields. The project will benefit from export incentives, duty-free import of machinery and free capital and income repatriation.

II. COMMERCIAL ASPECTS OF THE PROJECT

- The proposed plant capacity will be for 5,500 units of calculators, (three different models) total value US \$825,000 to start with. Since there is no similar manufacture in Singapore the total domestic consumption of 5,000 - 10,000 calculators, valued at US \$1.2 to 2.5 million, is imported. At present the imports range between 10,000 and 50,000 units per annum; however the majority is being re-exported. Price of imported products US \$275 - US \$330. Proposed average price US \$150 per unit.

III. PHYSICAL ASPECTS

- Location

Jurong Industrial Estate, Singapore.

- Land and Buildings

The required manufacturing space will be rented. Pre-built, complete factories for rent are available from the Estate Administration.

- Labour  
Readily available. Wage scales:  
Unskilled US \$30 per month  
Skilled US \$45 - \$60 per month
  
- Raw Materials  
85% from local suppliers, 15% imported from overseas.
  
- Infrastructure  
The new industrial estate has excellent infrastructure facilities such as harbour, highway, railroad and all supplies.
  
- Utilities  
Electricity US \$0.01 per KWH. Industrial water US \$0.66 - 0.70 per 1,000 gallons.

#### IV. ECONOMIC ASPECTS

- Importance  
The project is given high priority by the Singapore government because it consists of designing and manufacturing of professional electronic equipment from initial concepts. This would contribute to a new phase in Singapore's industrialization programme. These types of operations are particularly beneficial to Singapore's economy because of their high content of technological contribution to manufacturing know-how in new fields. Singapore offers political, wage and price stability, together with excellent labour productivity of high quality standards. Singapore, with its geographical position can be used as a manufacturing and distribution base for the whole of South East Asia.
  
- Incentives  
The project will benefit from export incentives in the form of a concessionary tax rate of 4% on profits earned from exports for a period of up to 8 years. Free capital repatriation is guaranteed as well as remittance of profits. Machinery and parts, as well as raw materials imported from abroad are duty-free.

V. FINANCIAL ASPECTS

- Composition of Investment

	<u>Local Cost</u>	<u>US \$ Foreign Exchange</u>	<u>Total</u>
a) Pre-investment costs	17,000	-	17,000
b) Assets:			
Land*	-	-	-
Building*	-	-	-
Machinery	18,000	15,000	33,000
c) Estimated working capital	<u>-</u>	<u>950,000</u>	<u>950,000</u>
	<u>35,000</u>	<u>965,000</u>	<u>1,000,000</u>

\*(land and buildings to be rented)

A detailed financing plan should be discussed with the potential foreign partner.

VI. ADDITIONAL RELEVANT INFORMATION

- Project presented by  
Digitron Equipments (Pte.) Ltd.  
Blk. a3, 6th Floor  
1050 - F, Tiong Bahru  
Industrial Estate, Lower Delta Road  
Singapore
- Legal Structure  
A private limited company has already been established.
- Documentation  
Feasibility and market studies should be prepared in co-operation with the foreign partner.

List of Proposed Products Attached.

Mature projects which have been completed in design and development:

1. Electronic calculators
2. Educational electronic kits, teaching aids and electronic toys
3. Electronic digital clocks
4. Office intercommunication system
5. Piped-in music and public address system

Listed below are some proposed products which can be quickly developed for almost immediate manufacture, pending on the outcome of market surveys. This list can be extended after some market research:

1. Electronically controlled power-supplies for industries
2. Temperature controller for liquids, electrical heating and cooling systems
3. Timing switch
4. Level control for water containers
5. Twilight switch with flame control
6. Revolution and speed controller for small type motors
7. U.H.F. Antenna amplifier (for T.V.)
8. Photographic flash unit
9. Wide range stroboscope
10. Adjustable delay timer
11. Digital frequency meter and chronometer
12. Medical electronics
13. Mini computers
14. Process control and industrial instrumentation
15. Automation systems for factory, aerospace and automobile industries

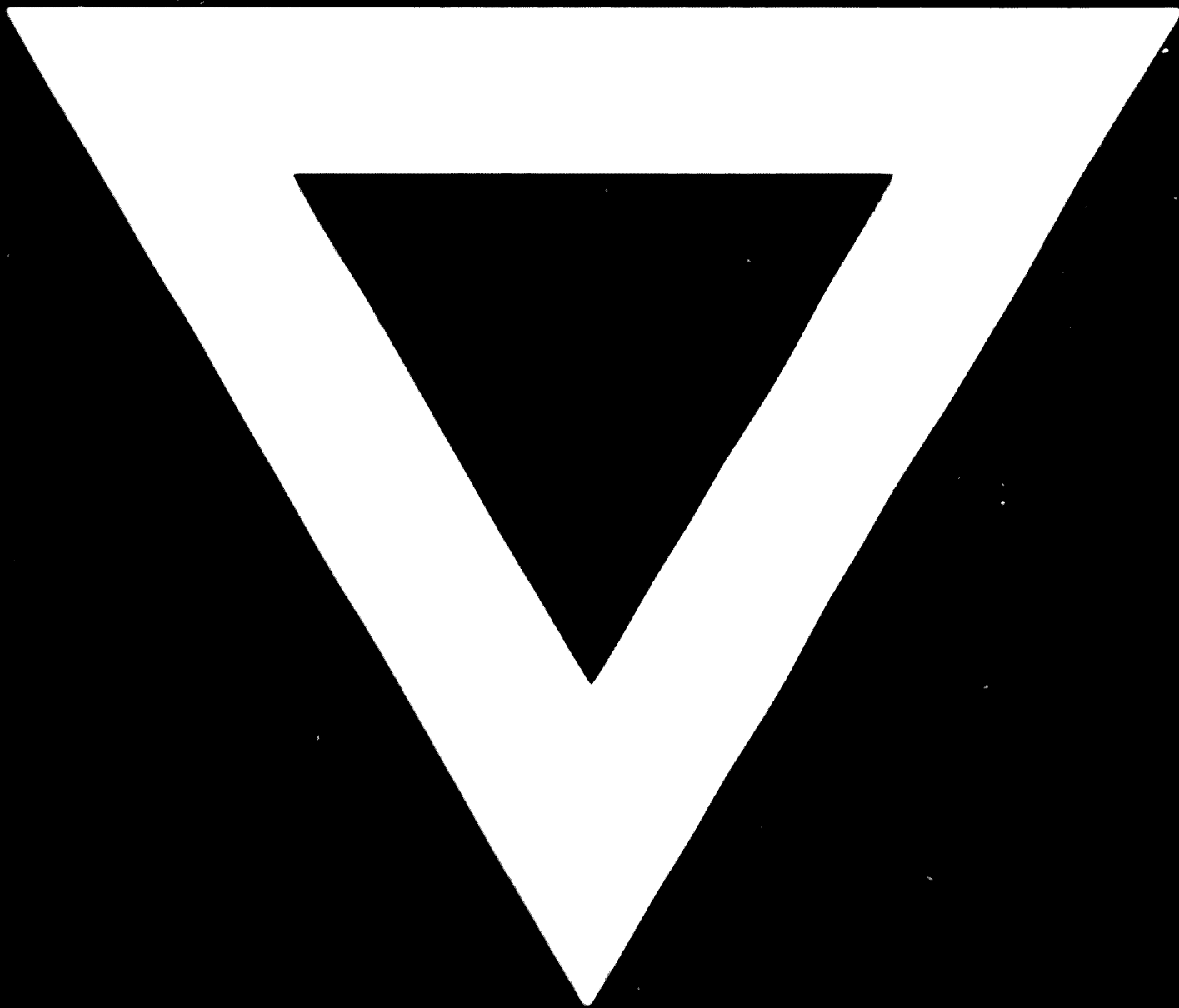
The following services in electronic technology and its allied fields could be developed and offered to potential clients:

1. Printed circuit boards (made to specifications regarding sizes, materials, finishing, etc.)
2. Manufacturing and assembling of electronic equipments or instruments of any descriptions (to any specifications).
3. To carry out designs, developments, investigations and experimental work of a very wide description in relation to electronics and the application and use of electricity.
4. Manufacture of other light engineering parts or mechanical components directly connected with electronic engineering.
5. Will also consider offers to act as agents or distributors for engineering specialities of every description.





**C-771**



**82.05.03**