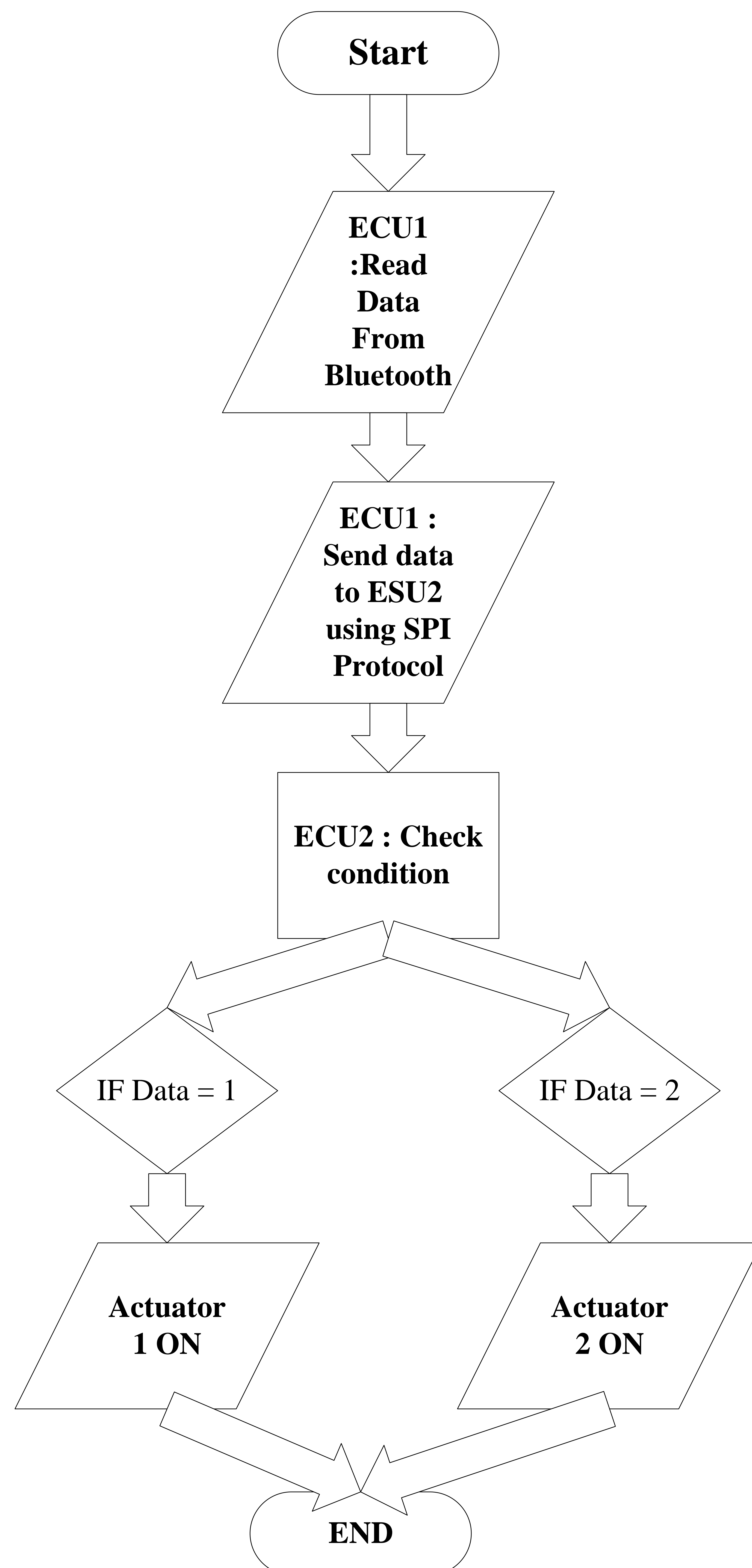


# Smart Home Project

## \*Description :

1-Smart Home based Bluetooth where we want to control home appliance wirelessly using Mobile App via Bluetooth..  
2-Two ECU's Communicate with each other the first is a control ECU which takes the input from Bluetooth and send it to the Sink (Actuator) ECU via SPI to interpret which action should be taken.

## \*Flow Chart :



### \*Components :

- 1- 2X ATMEGA 32 (Microcontroller).
- 2- Bluetooth Module (HC-05).
- 3- 2X LED (Actuator).
- 4 – 2X Resistance.

### \*Mobile APP :

- 1-Usa Blueterm .
- 2- Download from Google Play .
- 3- Pair Bluetooth .

### \*Software Architecture :

- 1-MCAL : Inside it → Microcontroller peripherals such as DIO , SPI , UART.
- 2-HAL : Inside I → Hardware driver such as LED.
- 3-UTIL : Inside it → Help file , such as data type UTIL.
- 4-APP : Inside it → application layer.

### \*Schematic :

