

Abstract— Currently the world is being reported with the emergence of a new virus, namely the Covid-19 virus, so the Indonesian government implements a Health protocol in the form of Physical Distancing. However, as time goes by, the government recommends that we get used to what is going on, one example is starting to allow on-site teaching and learning activities but on the condition that we continue to implement the existing protocol, namely implementing Physical Distancing. Through the design of this tool, namely smart presence using RFID and ultrasonic sensors based on the Internet Of Things (IoT) by paying attention to the object distance <50 cm which then sends a notification to the Telegram application when the object distance is less than 50 cm and the attendance status is successful. The warning indicator "too close, keep your distance" will appear in the Telegram application by giving a notification and is displayed on the LCD when the ultrasonic sensor detects an object <50 cm according to a predetermined distance. This series of smart attendance tools and physical distancing warnings using RFID, LCD, and ultrasonic sensors are able to work and run well. each RFID Card has a different ID Card, the Ultrasonic Sensor will detect the distance of the object, and the LCD will issue an output according to the existing conditions. After testing is carried out on all components of the tool, all systems that have been made can work and function properly in accordance with the desired system design.

Keywords-Covid-19, Physical Distancing, Internet Of Things (IoT), RFID, Ultrasonic Sensor HC-SR04, Telegram.