Information of the Solar Park Probe and its Parts.
The Parker Solar Probe works in extreme conditions, because it collects data in the Sun's Corona, being closer to the Sun than any previous spacecraft, the probe is made up of 4 groups of instruments that characterize the dynamic region close to the Sun measuring particles and electric/magnetic fields, each one was designed to withstand strong radiation and temperatures above 2500 °F.

FIELDS
The Fields set of instruments is responsible for collecting information on electric and magnetic fields such as the scale and shape they present in the Sun's atmosphere. It also measures the electric field around the spacecraft with five antennas; four of which protrude beyond the probe's heat shield, where 2500 °F are experienced. These 4 antennas are illuminated by the sun to measure the properties of the fast and slow solar wind, that is, the flow of solar particles that constantly leave the sun.

The antenna number 5 protrudes perpendicular to the others in the shadow of the heat shield (that is, backwards) and its purpose is to help create a three-dimensional image of the electric field at higher frequencies.

Magnetometers help FIELDS to evaluate the magnetic field. The probe is equipped with 3 magnetometers that carry coils in which voltages are induced by magnetic fields. One of these instruments is called a "Search Coil Magnetometer" or SCM for its acronym in English. It measures how the nearest to the sun magnetic field changes over time. On the other hand there are two twin fluxgate magnetometers; MAGi and MAGo, which measure the magnetic field on a large scale. These are specialized to measure the magnetic field farthest from the sun, where it is at a slower rate, while the SCM must be closer to the sun, where the magnetic field varies rapidly, sampling said field at a rate of two million times per second.

FIELDS was designed, built, and is operated by a team lead by the Space Sciences Laboratory at the University of California, Berkeley (principal investigator Stuart D. Bale).

WISPR
It is a Wide-Field Imager for Parker Solar Probe, the only one on board the spacecraft. Observe the structure of the Corona and the solar wind on a large scale. The WISPR imager has the size like a shoebox and this group of instruments collect images of distant structures such as coronal mass ejections. These and other structures travel from the Sun to reach the spacecraft, where other instruments take measurements.
WISPR helps link what happens in the big coronal structure on a large scale with detailed physical measurements that are captured directly in the environment close to the sun.

WISPR uses the carbon composite heat shield to block most of the sunlight, to prevent the crown from darkening. The probe is also equipped with specially designed baffles to reflect and absorb residual stray light reflected or refracted from the edge of the heat shield or other parts of the spacecraft.

WISPR was designed and developed by the Solar and Heliophysics Physics Branch at the Naval Research Laboratory in Washington, D.C. (principal investigator Russell Howard), which will also develop the observing program.

SWEAP
The SWEAP investigation collects observations using two complementary instruments: the Solar Probe Cup (SPC), and the Solar Porbe Analyzers, or SPAN. The instruments count the most abundant particles in the solar wind -electrons, protons, and helium ions- and measure properties such as speed, density, and temperature to improve our understanding of the solar wind and coronal plasma.

SPC is a metal device that can trap charged particles in a vacuum. It can measure how electrons and ions move and the energy that the sun emanates. A cup with high variable voltages is used to classify the particles, on several collector plates, the properties of the particles are measured.

SPAN is made up of two instruments SPAN-A and SPAN-B, which hace wide fields of view to allow them to see the parts of space not observed by SPC. This instrument sends the received particles through a series of baffles and voltages to classify the particles based on their mass and charge. SPAN-A measures electrons and ions; SPAN-B only detects electrons.

SWEAP was built mainly at the Smithsonian Astrophysical Observatory in Cambridge, Massachusetts, and at the Space Sciences Laboratory at the University of California, Berkeley. The institutions jointly operate the instrument. The principal investigator is Justin Kasper from the University of Michigan.

ISOIS
The Integrated Scientific Investigation of the Sun uses complementary instruments in a combined scientific investigation to measure particles in a wide range of energies.
By measuring electrons, protons and ios (charged atoms) it is possible to understand the life cycles of particles, where they came from, how they were accelerated, and how they move from the sun through interplanetary space. This group of instruments is made up of 2 parts: EPI-Lo and EPI-Hi (EPI means Energetic Particle Instrument)

EPI-Lo measures electron and ion spectra and identifies carbon, oxygen, neon, magnesium, silicon, iron, and two isotopes of helium He-3 and He-4. This distinction between helium isotopes helps determine which of several theorized mechanisms caused the acceleration of the particles. This instrumen observes and measures low-energy particles.

EPI-Hi uses three particle sensors made up of stacked layers of detectors to measure particles with energies higher than those measured by EPI-Lo. This instrument helps determine the direction of the particle and helps reduce background noise. CHarged particles are identified by measuring how deep they travel in the detector stack and how many electrons they extract from the atoms in each detector, a process known as ionization. When the probe gets closer to the sun, EPI-Hi will be able to detect up to 100,000 particles per second.

ISOIS is led by Princeton University in Princeton, New Jersey (principal investigator David McComas), and was built largely at the Johns Hopkins Applied Physics Laboratory in Laurel, Maryland, and Caltech, in Pasadena, California, with significant contributions from

Southwest Research Institute in San Antonio, Texas, and NASA’s Goddard Space Flight Center in Greenbelt, Maryland. The ISOIS Science Operations Center is operated at the University of New Hampshire in Durham.

Reference:
https://www.nasa.gov/content/goddard/parker-solar-probe-instruments