A patent application is a collection of documents that conform to U.S. laws, rules, and guidelines outlined in the Manual of Patent Examining Procedure (MPEP). Some application information must be provided on USPTO forms or an equivalent. Use of USPTO forms is not required but is strongly recommended. Other application documents are created by the applicant. Several factors determine which documents are necessary to complete an application, including the type of patent applicant, the protection sought, and the invention itself. This checklist, while not comprehensive, contains the most commonly required elements to help you assemble your application.
Utility Patent Application Transmittal Form
This form provides a list of the elements of a patent application and must be completed and signed by the applicant if submitted with the application. Note: if there is more than one party who makes up the applicant (e.g., there are three inventors who are the applicant and they are proceeding pro se, meaning without a patent attorney or patent agent) all of the parties must sign correspondence unless all give power of attorney to one of them to sign all correspondence on behalf of all of them. See discussion of power of attorney below.

www.uspto.gov/forms/aia0015.pdf

Fee Transmittal Form
This form is used to identify which fees are being submitted with the patent application. For a nonprovisional patent application, the basic filing, search, and examination fees are due at filing for all applicants, including small entity and micro entity applicants. If the basic filing, search, and examination fees are not received at the time of filing the application, then a late filing surcharge will need to be paid. Excess claims fees and application size fee may also be due if certain limits are exceeded.

Additionally, if the nonprovisional application is not filed through the USPTO’s Electronic Filing System-Web (EFS-Web) on its Internet website, www.uspto.gov, then a non-electronic filing fee is required.

A separate form is required if you are claiming micro entity status. See discussion below.

www.uspto.gov/forms/sb0017.pdf

Application Data Sheet
The application data sheet (ADS) is a form that lists bibliographic data including inventor information, applicant information, correspondence address, application, domestic benefit, foreign priority, and assignee information. This form can also be used to request that the application not be published. The form must be signed by the applicant.

This form is mandatory when, for example, the inventors have assigned their rights in the application to a company (assignee) and the assignee is filing the application as the applicant. The form is also required when the applicant wishes to claim the benefit of a prior-filed provisional or nonprovisional application, or claim priority to a prior-filed foreign or international application.

www.uspto.gov/forms/aia0014.pdf
www.uspto.gov/web/offices/pac/mpep/mpep-0600.html
Small and Micro Entity Status

Applicants who have small or micro entity status are entitled to discounts on certain fees. If you qualify as a small entity for patent fee purposes, no special form is required to assert your entitlement to reduced fees (you may check a special box on the fee transmittal form or application data sheet), but you should only submit the exact small entity fee with the application after ensuring that you qualify for the small entity status.

A micro entity is a person, small business concern, or nonprofit organization that meets the requirements of a small entity and a micro entity and completes either form PTO/SB/15A or 15B. An individual completing PTO/SB/15A to qualify for micro entity status must (1) qualify as a small entity, (2) not have been named as an inventor on more than four previously filed U.S. nonprovisional patent applications; and (3) not, in the calendar year before the calendar year in which the applicable fee is being paid, have had a gross income (see section 61(a) of the Internal Revenue Code of 1986) exceeding three times the median household income. Also, applicants cannot assign, license, or give rights in the invention to another that would not qualify as a micro entity. See 37 CFR 1.29 and MPEP § 509.03 for more information on who qualifies as a micro entity.

An individual completing PTO/SB/15B to qualify for micro entity status must (1) qualify as a small entity and (2) the applicant’s employer, from which the applicant obtains the majority of the applicant’s income, is an institution of higher education as defined in section 101(a) of the Higher Education Act of 1965 (20 U.S.C. 1001(a)). Also, applicant cannot assign, license, or give rights in the invention to another that would not qualify as a micro entity.

Certification based on gross income:
www.uspto.gov/forms/sb0015a.pdf

Certification based on institution of higher learning:
www.uspto.gov/forms/sb0015b.pdf

Specification

The specification is a collection of documents that describe the invention and how it is made or used. It must be written in full, clear, concise, and exact terms that any person knowledgeable in the same technology or science would understand the invention. The written description should not include information that is not related to applicant’s invention.

For more information on the preferred arrangement of the specification see:
www.uspto.gov/web/offices/pac/mpep/mpep-0600.html
Elements of the Specification

☐ Title of Invention
The title should be descriptive of the invention. Don’t use a name you would use to brand the invention, rather use one that describes the invention technically. Preferably, the title of the invention should be two to seven words and cannot contain more than 500 characters. It should appear at the top of the first page or in the application data sheet (ADS) if one is used.

The title of the invention may be accompanied by an introductory portion stating the name and residence of the applicant (unless already included in the ADS).

The Office will not enter certain words such as “new” or “improved” as part of the title of the invention.

www.uspto.gov/web/offices/pac/mpep/s606.html

☐ Cross-Reference to Related Applications
If you claim the benefit of one or more earlier-filed provisional or nonprovisional applications, you may identify the applications after the title of the invention. However, benefit claims, in order to be recognized by the USPTO, must be made in the application data sheet.

☐ Statement Regarding Federally Sponsored Research or Development
If the research and development cost of the invention were made using federal money, it is possible that an individual may retain U.S. domestic patent rights; however, the applicant must include a statement at the beginning of the application stating this fact.

www.uspto.gov/web/offices/pac/mpep/s310.html

☐ Reference to a “Sequence Listing” (if Applicable)
Some patent applications may need to include large sets of information on compact disc(s). The only materials that may be submitted on compact disc are computer program listings, gene sequence listings, and tables of information in excess of 50 pages. The specification must include a reference to the compact discs, and the total number of discs (including duplicates) and the files on each disc need to be listed. The text must be in ASCII format. A sequence listing may be submitted via EFS-Web instead of on compact disc(s).
Background of the Invention

The Background of the Invention is a way to provide context for the invention. It may include a statement about the technology or subject matter to which the invention pertains and may paraphrase any related patent classification definitions. It should describe any information known to the applicant (including references to specific documents) that are related to the invention, and references to specific problems involved in the prior art or state of technology.

www.uspto.gov/web/offices/pac/mpep/s608.html#d0e44561

Brief Summary of the Invention

This section should summarize the substance or general idea of the claimed invention. The summary may point to advantages of the invention and how it solves previously existing problems described in the background of the invention. It may also include a statement of the purpose of the invention.

www.uspto.gov/web/offices/pac/mpep/s608.html#d0e44589
www.uspto.gov/web/offices/pac/mpep/s608.html#d0e44561

Brief Description of Drawings

Where there are drawings, include a list of all figures by number (e.g., Figure 1, Figure 2) with corresponding statements explaining what each figure depicts.

www.uspto.gov/web/offices/pac/mpep/s608.html#d0e44626

Detailed Description of the Invention

This part of the specification should explain the invention and the process of making and using it in full, clear, concise, and exact terms. Be sure to distinguish the invention from other inventions. In the case of an improvement, confine the description to the specific improvement and to the parts of it that are necessary to completely understand the invention.

The description must be clear and complete enough that anyone working in that technology could make and use the invention without extensive experimentation.

www.uspto.gov/web/offices/pac/mpep/s608.html#d0e44731
A Claim or Claims
Claims define the scope of the legal protection of a patent. Whether a patent is granted is determined, in large measure, by the scope of the claims. The claim(s) must point out and distinctly explain the subject matter that the inventor claims as the invention.

A nonprovisional application for a utility patent must contain at least one claim. The claim section must begin on a separate sheet or electronic page and all claims should be numbered consecutively in Arabic numbers. Each claim should be written as a single sentence.

Some claims may be dependent on, or limited by, other claims in the same application. All dependent claims should be grouped together with the claims they are related to.

An application may contain three independent claims and up to twenty total claims without any additional claim fees being due.

www.uspto.gov/web/offices/pac/mpep/s608.html#d0e44973

Abstract of the Disclosure
This abstract enables the USPTO and the public to determine quickly the nature of the technical disclosures of your invention. The abstract explains what is new about the invention. It should be in narrative form and be limited to a single paragraph. It must begin on a separate page and should be no longer than 150 words.

www.uspto.gov/web/offices/pac/mpep/s608.html#d0e44136

-End of Specification-

Drawings
Patent applications are required to contain drawings when they are necessary to understand the subject matter to be patented. Because of this, most patent applications contain drawings. The drawings must show every feature of the invention as specified in the claims. A drawing necessary to understand the invention cannot be introduced into an application after the filing date of the application because of the prohibition against new matter.

www.uspto.gov/web/offices/pac/mpep/s608.html#d0e47639
The Inventor’s Oath or Declaration

Each inventor must make an oath or declaration that the application was made or authorized to be made by him or her, that he or she believes himself or herself to be the original or an original joint inventor of a claimed invention in the application, and that he or she acknowledges that any willful false statement made in the declaration is punishable under 18 U.S.C. 1001 by fine or imprisonment of not more than five years, or both. If the inventor makes an oath, it must be sworn before a notary public or other officer authorized to administer oaths. Declarations may be used in lieu of an oath. A declaration is not notarized and does not require a witness and is therefore preferable for most applicants.

The oath or declaration must include the inventor(s) legal name and must be personally signed by that inventor. If an application data sheet (ADS) is not filed, the mailing address and residence for the inventor must also be included in the oath or declaration. The utility application declaration form for use with an ADS is PTO/AIA/01.

Oaths and declarations must be in a language the inventor understands and, if not in English, a translation with a statement attesting to its accuracy must be included unless a USPTO foreign language translation form is used. The USPTO provides declaration forms in certain foreign languages with an English translation for applicants to use.

If an inventor refuses to sign an oath or declaration, cannot be found or reached after diligent effort to sign the oath or declaration, is deceased, or is legally incapacitated, then a substitute statement must be filed. The substitute statement must be signed by the applicant.

www.uspto.gov/forms/aia_forms.jsp (beneath Inventor’s Oath or Declaration heading)
www.uspto.gov/web/offices/pac/mpep/s602.html#ch600_d1ff64_29e5e_a0

Form PTO/AIA/81 may be used by pro se inventors who are the applicant for patent to appoint one or more of the joint inventors as having power of attorney in the application file. If this form is used, all joint inventors must sign the form, including the inventor who is being appointed. This power of attorney permits the appointed inventor(s) to sign all correspondence on behalf of all of the inventors. If no power of attorney is given to one or more of the joint inventors, then all of the joint inventors who are the applicant for patent must sign patent application correspondence being filed with the USPTO.