# Non-Confidential Description

The objective of this description is two-fold.

* Simple enough to convey understanding of the essential aspects of the technology to a non-expert
* *Grab* the attention of potential licensees/partners, entrepreneurs, or investors
* Outline the advantages and present the ‘promise’ or ‘future’ of the technology

*i.e.*, what would a potential licensee expect to gain from the technology once it is deployed in the market place?

If it is written well, the non-confidential description will be used to market the technology in several venues: The Research Foundation website, on websites dedicated to TTO marketing and in promotional literature and other marketing pieces prepared by The Research Foundation and its agents.

Confidential Information

# Confidential Description

A relatively detailed description of the technology, but not be overly long. For Internal Use Only. Information and materials that add value to this description should be captured as either Internet links or as reference materials in the sections noted below.

## Critical Background Information

Is there critical information not covered in the sections above that will lend clarity to the efforts necessary to bring this technology to market?

Are there opportunities or threats that will promote or hinder the technology?

Is there momentum in the marketplace that will speed this technology to market?

Are there trends now or on the horizon to which we can adapt the technology to expedite commercialization?

## Intellectual Property Status

**A. Patentability and Prior Art Issues**

Is this technology patentable?

Has a prior art or patentability search been conducted?

Has there been any public disclosure of this technology and if so, does this affect the IP strategy?

**B. IP Strategy**

What is the intellectual property (IP) strategy for this technology?

* Is the technology ready for filing?
* We should not file as this time, and, why?
* Provisional patent application (one year protection)
* Utility patent application
* Will we file in any foreign countries?
* Who will own the IP?
  + What grants and other funds supported the work behind the disclosure?
  + What stake do the granting and funding agencies have in the IP?
  + Does the grant or fund include IP costs?
  + Where is the grant or funding timeline?
    - Early, middle, late?
    - Is the grant for basic, applied or development research?

Do the PI or any co-inventors have any prior submissions to the TTO?

Are there other institutions involved? Is an inter-institutional agreement (IIA) in place?

**C. Technology Readiness Level (see Appendix)**

Has the technology been reduced to practice?

* Is a prototype available?
* Are samples available for testing?
* Is a product available?
* Are customers identified?

If the product has not been reduced to practice, when will this occur?

What barriers to development do you foresee?

What is the TRL? (See Appendix)

**D. New Developments**

Are there any recent developments regarding this technology?

* Is the new information supporting the technology?
* Are the developments novel and non-obvious?
  + - * Would the developments form a new NTD?

# Market

What is the marketing strategy for this technology?

* Does this strategy complement the IP strategy?
* What market will this technology meet or address?
  + What is the size of that market?
  + Is it a new market?
* Are there any intermediate marketing activities that would better position this technology for market?
  + These activities include: brochures, Technology of the Month on the RF website, a booth at a professional exposition or trade show, etc…

Is this technology ready for an industry or venture capital forum like SmartStart or UNYTech, or a local presentation to angels?

## Substitutable Technologies and Products

What other technologies or research are similar to this one or would likely compete with this technology in the market?

* How are they similar or different?
* What is the patent number and title of similar technology?
* What are the advantages/strengths and disadvantages/weaknesses of our technology over the competitor?
* Is the technology available for purchase?
* If so, what company is selling the technology?
* What is the time frame for when they will compete?
* What is the price of competing products?

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| --- | --- | --- | --- | --- | --- | --- |
| Product Name or Patent Title & Application No. | Similarities | Differences | Advantages | Disadvantages | Company name | Web site & contact |
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## Cost Analysis

Break down cost of components and cost to build product

* Cost to build prototype is next best thing to BOM

# Potential Partners and Licensees

Any potential companies to partner with or license the technology?

* What is the relative financial health of the target companies?
* Do we currently license other technologies (now or in the past) to the companies?
* Is there contact information available for a decision-maker within each company?
* Does the company have a formal (or informal) evaluation process for new technologies?

Do the researcher(s) plan to license the technology?

Are the inventor(s) interested in a startup company surrounding this technology?

Are there STTR, SBIR or other similar collaborative research monies available in the near future?

# Recommendations and Comments

Recommendations for optimal IP protection and commercialization strategies

* Give alternates as well

# References & Links

On a scale from 1-10—1 being the lowest, 10 being the highest—how would you rate the amount of information on the Internet that can be found for this topic?

Place here information that will support the MOA:

Links or listings of key papers, publications and patents

Links or listing of other players (research and industry) in the technology arena

# Appendix: Technology Readiness Level

|  |  |  |  |
| --- | --- | --- | --- |
| **Technology Tier** | **TRL** | **Technology Readiness**  **Level (TRL) Definition** | **Description** |
| **A.**  **Research and Proof of Concept** | 1 | Basic principles observed and reported. | Scientific research begins translation to applied R&D -  Lowest level of technology readiness. Scientific research begins to be translated into applied research and development. Examples might include paper studies of a technology’s basic properties. |
| 2 | Technology concept and/or application formulated. | Invention begins –  Once basic principles are observed, practical applications can be invented. Applications are speculative and there may be no proof or detailed analysis to support the assumptions. Examples are limited to analytic studies. |
| 3 | Analytical and experimental critical function and/or characteristic proof of concept. | Active R&D is initiated –  Active research and development is initiated. This includes analytical studies and laboratory studies to physically validate analytical predictions of separate elements of the technology. Examples include components that are not yet integrated or representative. |
| **B.**  **Technology Development: Prototype** | 4 | Component and/or breadboard validation in laboratory environment. | Basic technological components are integrated –  Basic technological components are integrated to establish that the pieces will work together. This is relatively “low fidelity” compared with the eventual system. Examples include integration of “ad hoc” hardware in the laboratory. |
| 5 | Component and/or breadboard validation in relevant environment. | Fidelity of breadboard technology improves significantly –  The basic technological components are integrated with reasonably realistic supporting elements so it can be tested in a simulated environment. Examples include “high fidelity” laboratory integration of components. |
| **C.**  **Technology Demonstration** | 6 | System/subsystem model or prototype demonstration in a relevant environment. | Model/prototype is tested in relevant environment –  Representative model or prototype system, which is well beyond that of TRL 5, is tested in a relevant environment. Represents a major step up in a technology’s demonstrated readiness. Examples include testing a prototype in a high-fidelity laboratory environment or in simulated operational environment. |
| **D.**  **Commerce Ready Technology** | 7 | System prototype demonstration in an operational environment. | Prototype near or at planned operational system –  Represents a major step up from TRL 6, requiring demonstration of an actual system prototype in an operational environment. |
| 8 | Actual system completed and qualified through test and demonstration. | Technology is proven to work in its final form and under expected conditions - Actual technology completed and qualified through test and demonstration. In almost all cases, this TRL represents the end of true system development. |
| **E.**  **Field Operational Technology** | 9 | Actual system proven through successful field/mission operations. | Actual application of technology is in its final form and under field/mission conditions - Technology proven through successful operations. |